

CONVERTED RAILROAD TRAILS:
THE IMPACT ON ADJACENT PROPERTY

by

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CHAPTER I

INTRODUCTION

In the past 30 years, outdoor recreation has increased substantially in the United States. Changes in lifestyle with an expanded leisure time and an emphasis on physical fitness and exercise have contributed to this renewed interest in the outdoors. The Outdoor Recreation Policy Review Group, chaired by Lawrence Rockefeller, concluded in February, 1983 that:

"...outdoor recreation is more important than ever in American life - as a fundamental expression of our national character, [and] for its benefits to individuals and to society... (Cordell, 1983:42)."

But at a time when more recreational opportunities are needed to meet the increasing demand, available open space in many parts of the country is at a premium. Our growing population with its expanding built environment, has increased competition for land use, especially near the urban areas. Due to the rising costs for traditional recreational sites, property that was considered undesirable or inappropriate in the past, is now more attractive for converting into park land.

One option which offers unique opportunities, is recycling abandoned railroad rights-of-way into recreational trails. These linear routes are accessible to a large number of people and are ideal for many outdoor activities such as hiking, bicycling, jogging, cross-country skiing, and horseback riding.

But recreation is not the only application for these linear trails. Some corridors could be used to gain access to rivers and public land for hunting, camping, and fishing, while others would be excellent transportation links for non-motorized vehicles. Many rights-of-way are ideal for conservation trails in nature interpretation and wildlife protection. Unique routes could be used to preserve our historical and cultural past and our natural scenic beauty (Burwell, 1986). These corridors may be scenic, historic, a refuge for plants and animals, ideal for gaining access to public areas, or a combination of several possibilities.

CONVERSION PROBLEMS

Recycling abandoned rail corridors into park land offers many advantages, and yet a number of obstacles can block the proposed project. Obtaining funds can be a problem, depending on the location of the trail. Several states have active agencies in place to coordinate the conversion process, but most funding comes from appropriations by the state legislature or from local city or county government. These governmental bodies may be unwilling to invest money in a trail unless there is a grassroots or broad based support for the project.

Even when there is major support, the complexity in establishing legal ownership with a clear title can prevent trail development. In

some states, adjacent landowners have the first option to purchase the abandoned railroad land. In these areas, it is virtually impossible to obtain a right-of-way with continuous linkage. The state may have the right to condemn land, but this option is generally employed only on a limited basis. In other states, the legal rights to the abandoned tracks are more clouded. In many instances, the court system has to decide legal ownership of the property.

But one of the most serious obstacles to trail conversion is the organized opposition of nearby residents. To these owners, the possible advantages of the trail do not outweigh their fears and the perceived negative impact on their property. This is a problem faced by all public facilities, which can be expressed with this statement: "Sure power lines (sewage treatment plants, fire stations, etc.) may be necessary, but I don't want one in my back yard (CACEQ, 1975:28)." To some extent, linear trails may have an added burden because the need for more recreational areas is not understood.

When major landowner opposition exists, there is an increased possibility that money or title problems are also part of the picture. The key to avoiding obstacles in the conversion process, is answering the concerns and fears of landowners before organized opposition is established.

An excellent resource guide on the problems with rail-trail conversion is the Recreational Reuse of Abandoned Railroad Rights-of-Way: A Bibliography and Technical Resource Guide for Planners (1981) by Gregory Ames. This reference includes a wide range of topics from basic policy guides to feasibility studies and impact statements.

STUDY ISSUES

Planners and supporters of railroad trails should be aware of the reasons which may cause landowner opposition. Many residents have valid concerns about the impact of the trail on their property. The fear of increased crime, the loss of privacy, and lowered property values are some of the issues that need to be addressed. Where violent opposition is evident, the concerns of owners near proposed trails, greatly exceed the problems experienced by residents adjacent to existing trails. If nearby landowners could be assured that their fears are exaggerated, many problems associated with trail conversion could be avoided.

The focus of this study is to compare past landowner concerns with their current problems. This comparison will document the changing attitudes of owners. The data will indicate an increased desirability rating for trails. The information gathered in this document could be used to generate public and landowner support for converting abandoned railroad rights-of-way into trails. The result would be additional recreational opportunities that offer unique experiences.

CHAPTER II

BACKGROUND / LITERATURE REVIEW

HISTORICAL BACKGROUND OF LINEAR PARKS

Although the term "linear park" became popular in the 1960's and 1970's, the use of long narrow strips of park-like land as transportation links were employed by Olmsted in the 1800's. Parkways were used in Boston, Buffalo, and many other cities to create a relaxing, tranquil, and enjoyable access to the large pleasure grounds from the other sections of town. At times, Olmsted used existing drainage ways to link a series of parks such as the Emerald Necklace in Boston. In this system, parkways for horse and buggies, as well as separate pedestrian walks connected the parks and open spaces (Zaitzevsky, 1982).

With the use of the reform park and the recreational facility, which dictated a block or grid form, linear park land was not as popular in the early to mid 1900's (Cranz, 1982). Even the parkways were perceived more as a transportation link rather than as a scenic, relaxing drive through open space. The benefits of the linear park system were basically forgotten or ignored.

INTEREST IN TRAIL DEVELOPMENT

In the 1960's, due to the greater interest in outdoor activities, trails played an increasing role in meeting the demand for more recreational opportunities. These linear paths were developed on many different types of land including traditional park land and wilderness areas. But because of the limited availability of open space near urban areas and the rising cost of land prices, recreational agencies began to look at land not previously associated with park use. Natural and human-made corridors offered unique possibilities because they were unused, underdeveloped, or abandoned.

Edges along marshes, wetlands, lakes, coastal beaches, and rivers are examples of natural corridors that have been developed for trail use. Streams and rivers through urban areas have become increasingly popular for park land, due to the restricted development of the flood plain in many areas (Bentryn, 1976). Rapid City, South Dakota, for example, experienced a disastrous flood through the middle of town in the 1970's. Building construction in the flood plain was limited and a linear park and trail system was created along the Rapid Creek. Another redevelopment project, the Cedar River Trail System in Renton, Washington, won an ASLA Merit Award in 1980 for its 4.8-mile linear park design (Clay, 1980).

Many types of human-made corridors have been recycled for park and trail development. Dams, levees, causeways, canals, street rights-of-way, power and pipe line rights-of-ways, and abandoned railroads are all examples of reused land (Bentryn, 1976). Two parks that won ASLA Merit Awards for design in 1980 were developed on abandoned corridors. The

Boeing Renton Linear Park in Renton, Washington was converted from a barren railroad right-of-way near an industrial facility. And Lowell, Massachusetts, as part of a renovation program, reclaimed a neglected urban canal and established Western Canal Park (Clay, 1980).

CONVERSION OF RAILROAD RIGHTS-OF-WAY

Converting railroad rights-of-way into linear parks and trails has become popular in the past 25 years. Several factors contribute to this interest in recycled land (CACEQ, 1975):

1. The popularity of linear recreational activities.
2. The increased demand for access to natural outdoor areas providing recreational use.
3. The increasing number of abandoned railroads which were available for reuse.
4. The number of rights-of-way which were accessible and desirable for park use.
5. The low cost in physical reconstruction of the railroad trail.

Outdoor activities that are well suited for recreational trails have increased in popularity in recent years. According to a national recreation survey conducted in 1982 and 1983 by the U. S. Department of the Interior, Americans spend more time outdoors enjoying nature and exercising than 20 years ago. Walking, biking, jogging, canoeing, and snow skiing have all increased rapidly in popularity since the 1960's. But the study also indicates that the amount of time spent outdoors is limited by a lack of time and money to travel to recreational areas. In addition, old age and child-raising may restrict the availability of certain types of activities for some people (Rooney, 1986).

In 1962, the Outdoor Recreation Resources Review Commission completed the first comprehensive outdoor recreation assessment. Three major observations by the Commission as reported by Cordell (1983:42), included:

1. Outdoor recreation opportunities are most urgently needed near metropolitan areas.
2. Considerable land is available for outdoor recreation, but it does not effectively meet the need.
3. Outdoor recreation is a major leisure time activity which is growing in importance.

Because of the increased demand, additional recreational facilities which are easily accessible to people are needed. Linear railroad trails in or close to urban areas are a viable solution.

Many thousands of miles of rail lines have been abandoned in recent years. In 1920, about 260,000 miles of railroad track were in service in the United States. At the present time, there are 145,000 miles in use and by the year 2000, a 100,000 mile core rail system is predicted by analysts (Burwell, 1986). Although all abandoned tracks are not desirable for linear parks, many could easily be adapted for trails use.

Railroad rights-of-way have several characteristics that make them desirable for linear parks and trails. According to the urban planner, William H. Whyte in The Last Landscape (1968:173), "...linear strips are probably the most efficient form of open space..." People see and also use the edges of park land the most for recreation. Whyte felt that in urban areas where land is difficult to obtain, linear strips of open space could be developed on obsolete transportation rights-of-way.

Linear parks established on railroad corridors, come into contact with more private land than does traditional park land. These rights-of-way cut through many different types of land use and allow access to large numbers of people with a variety of activities. Many of these abandoned routes are close to urban areas, where additional recreational opportunities are needed.

Because railroads require gentle grades of less than three percent, they generally follow drainage patterns along creeks and rivers and through mountain valleys and passes. In many cases, these routes offer outstanding scenic beauty and unique plant and animal habitat, and also represent our historic past (Fig. 2.1 Grade Cut on Rail-Trail; Fig. 2.2 Old Railway Bridge; Fig. 2.3 Bridge Near Lake). Since much of our railroad system preceded land cultivation, some rights-of-way contain the remnants of original plant ecosystems. Converting these corridors to park land preserves the cultural and historic past, the scenic beauty, and the existing ecosystems as a living and working museum for the future (Burwell, 1986).

Developing a trail on an existing railroad right-of-way will save money on labor and materials and in some cases, save time in acquiring property. If there are no problems, the entire length can be purchased in one transaction, as opposed to dealing with several owners individually. Because of the tax burden, rail carriers are sometimes eager to sell the abandoned right-of-way. If bridges and culverts are left intact, little physical construction remains. Once the ties are removed and the existing roadbed is graded, only an application of a surfacing material is needed (CACEQ, 1975).



Figure 2.1 Grade Cut on Rail-Trail The Root River Trail near Lanesboro, Minnesota as it passes through an old railroad grade cut.



Figure 2.2 Old Railway Bridge An iron railroad bridge on the Luce Line Trail at Orono, Minnesota.



Figure 2.3 Bridge Near Lake A typical wood-planked bridge on the Luce Line Trail at Oak Lake near Watertown, Minnesota.

At the present time, 158 trails in 31 states have been converted from abandoned railroads (Fig. 2.4 Location Map of Rail-Trails). Most of these trails are located in the north-central, north-eastern, and extreme western sections of the country. Nine states have seven or more developed trails: California, Wisconsin, Illinois, Pennsylvania, Iowa, Washington, Minnesota, Ohio, and New York. Many of these states have the best programs in the country for developing rail-trails. A complete listing for all converted trails can be found in A Guide to America's Rail-Trails (1988), published by The Rails-to-Trails Conservancy, Washington, D.C. (The Rails-to-Trails Conservancy, 1986, "Old Rails Become New Trails Across the U.S.") (Gaby, 1988).



Figure 2.4 Location Map of Rail-Trails Location of the 158 trails that were converted from abandoned rail lines in the U.S. (Generated from The Rails-to-Trails Conservancy, 1988).

OPPOSITION TO RAIL-TRAILS

Although the conversion of railroad land to recreational use has broad based support in many parts of the country, some adjacent landowners view linear parks as a potential problem. The concerns of these owners about the negative impact on their property outweigh the possible advantages of the proposed trail. In 1980, a report on major controversial facilities in Minnesota was developed by the Citizens League, an independent, public affairs organization. This document indicates that state trails in Minnesota, face opposition on more issues about site selection and local effects, than do pipelines, power plants, power lines, or hazardous waste landfills (Fig. 2.5 Facility Siting Issues) (Citizens League, The Committee on Facility Siting, 1980).

FACILITY SITING ISSUES
(Issues raised by facility opponents)*

	POWER PLANTS	POWER LINES	PIPELINES	SOLID WASTE LANDFILLS	HAZARDOUS WASTE LANDFILLS	STATE TRAILS	STATE WILD AND SCENIC RIVERS
NON-SITING POLICY ISSUES							
PROCESS ISSUES							
Opposition to "Big Government," government agencies, "Big Business"	x	x	x	x	x	x	x
Lack of early local involvement in the process	x	x	x	x	x	x	x
Use or anticipated use of eminent domain	x	x	x	x	x	x	x
Use of zoning							x
NEED ISSUES							
Lack of consideration of alternatives to proposed facilities	x	x	x	x	x	x	x
Projected demand for facility services in excessive	x	x	x	x	x	x	x
Lack of data on societal costs of no additional facility services	x	x	x	x	x	x	x
Lack of public planning regarding facility needs	x	x			x	x	
THE FACILITY COST ISSUE							
Lack of consideration of facility capital and operating costs	x	x	x			x	x
MAJOR ENVIRONMENTAL ISSUES							
Water pollution	x		x	x	x		
Air pollution (including dust and odor)	x	x		x			
Water quantity used	x						
SITE SELECTION POLICY ISSUES							
Use of agricultural (including forest crop) land	x	x	x	x	x	x	x
Use of rural land for urban purposes	x	x	x	x	x	x	x
Why not use public land?	x	x		x	x	x	x
Use of recreational and natural areas	x	x		x	x	x	x
Why not use existing facility sites?	x	x		x	x	x	x
Non-compliance with local zoning or plans				x	x	x	x
Too much government-owned land already				x	x	x	x
Why not use other types of existing sites?		x	x			x	
Site according to property lines		x	x			x	
Site where district heating is possible	x						
LOCAL EFFECTS ISSUES							
LOCAL ECONOMIC ISSUES							
Loss of local property values	x	x	x	x	x	x	x
Impact on possible future local development	x	x	x	x	x	v	x
Increase in local public service costs	x	x		x	x	x	x
Impact on adjacent farm operations	x	x	x				x
Loss of local tax base				x	x	x	x
LOCAL ENVIRONMENTAL AND SOCIAL ISSUES							
None	x	x		x	x	x	v
Impact of feeder traffic	x			x	x	x	x
Health and safety effects	x	x	x	x	x		
Visual impact	x	x		x	x		
Fires				x	x	x	x
Type of construction		x	x	v	x		
Litter					x	x	x
Weeds		x					x
Need for fences			x	x			
Vandalism, trespassing, lack of privacy							x
"Experimental" nature of facility		x			x		
Radio and TV interference		x					

Figure 2.5 Facility Siting Issues Chart indicating the issues that opponents raised for each type of facility (Citizens League, The Committee on Facility Siting, 1980).

The organized opposition of nearby residents is a major obstacle to trail development (CACEQ, 1975). These people, for a variety of reasons, will work vigorously to prevent the establishment of the proposed trail. Individual landowners may be reasoned with, and their property quietly purchased or condemned, but organized opposition, in many instances, can halt the conversion of worthwhile projects (Macdonald, 1980).

For example, in 1986, a linear park and trail system proposed northwest of Kansas City, Missouri, was blocked due to the fears of the local residents for their property. John Birch, state representative for one of the districts involved, stated, "The local population was incensed. They were afraid for their property. Birch added, "It (the trail) sounded like a progressive idea to me. But I'm not going to shove it down my people's throats (Dvorak, 1987:B-3)."

In a more ambitious project, the Missouri Department of Natural Resources (DNR), has plans to create a 200 mile linear park from St. Charles to Sedalia along the historic Missouri River (Fig. 2.6 Location Map of MKT). The proposed trail receives wide support across the state and other parts of the country. Several citizens groups favor the trail, including the Conservation Federation of Missouri, the National Wildlife Federation, and the Rails-to-Trails Conservancy. Governor John Ashcroft, indicating his support, asked the General Assembly in 1987 to appropriate \$1.6 million for purchase and partial operation of the trail. But there was opposition in the legislature, reflecting resistance by some adjacent landowners, particularly the farmers. In December of 1986, 148 adjacent landowners and the Missouri Farm Bureau

filed a suit in U.S. District Court in St. Louis contesting the ownership of the right-of-way. In May of 1988, a federal judge ruled in favor of the trail. But these owners are expected to appeal the decision and the project will be placed on hold once again (Fig. 2.7 Battle of the MKT Trail) (Irons, 1987) (Schneller, 1987) (Gillmor, 1987, 1988) (Dvorak, 1987).

A common source of hostility for residents is the feeling that the unused railroad land rightfully belongs to the adjacent landowner, regardless of the actual property title. But indications that linear parks serve the majority of the people in the area, can change the attitudes of owners.



Figure 2.6 Location Map of MKT Location of the proposed (MKT or KATY) trail on the abandoned Missouri-Kansas-Texas Railroad Right-of-Way (Gillmor, 1987).

Battle of the MKT trail



Photo by Bob Voss, Staff

This railroad track southwest of Columbia already serves as a bike path for John Hargis, 12; some hope to make it a 200-mile public trail.



Proponents of the trail largely ignore its costs to landowners, says opponent Bruce Flores, whose land adjoins the railroad near McBaine, Mo.

Landowners, naturalists compete for right of way

By Dan Gillmor
Mid-America Correspondent

McBAINE, Mo. — The people fighting over a proposed recreational trail through the heart of Missouri probably would agree that the sights and sounds from the Perche Creek trestle are the stuff of nature and history.

One side wants to preserve the beauty and heritage for bikers, hikers and tourists. The other wants to protect it from vandals, thieves and litterbugs.

Their fight in court and in the Missouri General Assembly for control of this abandoned train line is being watched nationally by those who want to turn vacated railroad routes into hiking and biking trails, and those who see such paths as an attack on property rights. Railroad trail enthusiasts say this 200-mile route is the longest, most scenic and most historic line in the country available for conversion to a recreation path.

The abandoned Missouri-Kansas-Texas Railroad right of way cuts a 100-foot-wide strip across Missouri, stretching from Sedalia to St. Charles County, just west of St. Louis.

At the aging steel bridge over Perche Creek, southwest of Columbia, the natural beauty at the center of the fight is abundant.

In the brow-mopping, pre-thunderstorm afternoon heat, the leaves gently rustle in the

cottonwoods and soft maples that flank the muddy creek, which winds a couple of miles downstream to the even muddier Missouri River. Bluebirds and sparrows dart and chirp through the thick air while gnats uncanonically find the nearest human ear. The railroad tracks, rusted now from disuse, form their narrow vee into the distance through woods and fields of corn and soybeans.

A few hundred feet down the tracks stands a massive oak tree, a tree that long predates the celebrated expeditions of famed white explorers — Daniel Boone and Lewis and Clark among them — through this once-rugged country.

Those who favor turning the railroad bed into a public trail dream of the day when thousands of visitors will hike, bike and stroll along this stretch and others.

"This is a once-in-a-lifetime opportunity," said William Palmer, director of public information for the Missouri Department of Natural Resources.

But for some adjoining landowners, the dreams aren't so pleasant. They visualize litter and vandalism, and maybe worst of all, the trampling of their rights as property owners.

Proponents of the trail "are dwelling totally on the benefits and largely ignoring the

See LANDOWNERS, A-20, Col. 1

Figure 2.7 Battle of the MKT Trail Newspaper article from the Kansas City Times on the dispute between landowners and naturalists over the proposed MKT trail (Gillmor, 1987).

According to Dave Burwell, president of the Rails-to-Trails Conservancy in Washington D.C., opposition by adjacent landowners "is a theme that comes up again and again. When the trails get built they win friends (Gillmor, 1987:A-1)."

In some cases, organized landowner opposition does not prevent the conversion of the right-of-way into a trail. When the Cedar Valley Nature Trail in Iowa was being proposed in the early 1980's, neighboring farmers and small towns raised fierce opposition. But after this 52-mile trail from Waterloo to Cedar Rapids was completed, the resentment did not end. Nails were found protruding upward through thin boards buried in the trail surface. However, when arsonists burned two trestle bridges, many people, angry with the situation, became avid trail supporters. Rick Young, secretary of Old Interurban Trail Inc, a volunteer organization formed to develop the trail, said, "The bridge-burning was a turning point. That really riled a lot of people who'd been neutral before (Gillmor, 1988:A-10)." Now many of the former opponents are trail supporters. Darrel D. Loveless, La Porte City Mayor, stated, "I've changed my mind - I've seen what it's done for my community." The Police Chief of La Porte City, Larry Feaker said, "I was very skeptical of the trail. But it proved us wrong. The people out there aren't vandals or thieves. They're out for the scenery, a good time (Fig. 2.8 Former Foes Back Trail) (Gillmor, 1988:A-1,10)."

ADJACENT LANDOWNER CONCERNS

Since organized opposition can block or delay projects, trail planners should be aware of the concerns of local residents and be prepared to address and resolve potential problems. Issues such as

Former foes of trail in Iowa now back it

Continued from Page A-1

Loveless, originally an opponent of the trail, which was completed in 1984.

The debate over the trail, which is one of the longest rails-to-trails conversions in the nation, isn't over. In fact, one farmer near Urbana, a small town southeast of La Porte City, recently bulldozed and barricaded about half a mile of the trail and is planning more on it. Riders and hikers now must detour several miles on gravel county roads.

"Why did we do it? Because it's ours," said Edward McKinley, who was legally within his rights after an Iowa Supreme Court decision that gave him possession of a small piece of the former railroad right-of-way. "We can straighten (the field) out and have three-quarter-mile rows."

The state may condemn and purchase a strip of McKinley's land under eminent-domain laws and restore the trail. McKinley, who is angry at being called selfish for using his land the way he sees fit, won't say whether he'd fight such a move by the state.

Rough pathway to success

Iowa leads the nation in the number of trails converted from abandoned railroad beds. But the road to success for the Cedar Valley Nature Trail, widely considered the jewel of the group and one of the nation's finest, has been anything but smooth.

Backers got serious about the Cedar Valley conversion around the turn of the decade. They encountered vehement opposition from many neighboring farmers and residents of the small towns, including La Porte City, along the route.

Opponents raised a fearful specter. They said lutebugs, vandals, thieves and worse would adopt the trail and neighboring property as a criminal playground.

The bad guys never made an appearance, law enforcement officials said.

"I was very skeptical of the trail," said Larry Feaker, chief of police in La Porte City. "But it proved us wrong. The people out there aren't vandals or thieves. They're out for the scenery, a good time."

Such was the fury aroused by the project at its inception, however, that someone pounded nails through thin boards and then burned the boards, nails protruding upward of the trail. Anonymous torches two trestles, destroying one, since rebuilt, and seriously damaging the other.

"The bridge-burners had a turning point," said Rick Young, a Wat-

erloo contractor who is secretary of Old Interurban Trail Inc., a volunteer organization formed to develop the trail. "That really riled a lot of people who'd been neutral before."

Since its opening, the trail has made a lot of friends. Between 50,000 and 100,000 people, including visitors from at least 30 states, biked or walked on the trail last year, according to estimates from local officials and trail backers.

The most avid trail-users, naturally, are local people. One prominent devotee is Olean Arenholz, a 58-year-old grandmother from La Porte City who rides her vintage one-speeder daily in good weather and ends a conversation with a smiling "Happy trails." Riding, she said, has improved her health — her doctors took her off her blood-pressure medication last fall. And it has increased her appreciation of nature.

"I learn new things every time I go out there," said Arenholz, who estimates she logged 2,750 miles on the trail in 1987.

A variety of Iowa terrain

Indeed, the trail's surroundings provide a powerful attraction. One stretch, for example, from La Porte City to Brandon, the next town to the southeast, features a surprising variety of species (within the limits of Iowa's geology), plant life and wildlife.

On a warm spring morning, a rider passes through newly planted fields, the long rows of cultivated earth stretching to the horizon. Cattle linger under shade trees while turtles bask in the bright sunlight on marsh logs.

Suddenly the sun is gone as the trail sweeps through a dense stand of box elder and Chinese elm trees, their leafy limbs forming a graceful canopy over the path of easy-to-maintain crushed limestone. The sky reappears as the trail crosses Cedar River, a wide, slow-moving waterway that gives the valley its name.

At Spring Creek, a rider encounters quiet evidence of the trail's ancient history: a concrete bridge that replaced the burned-out trestle. Then comes Dinosaur Lake, a large pond with a primeval look — tree stumps jut out of the water, which is lapped by the wind onto the marshy shore. Beyond the lake are limestone bluffs and a quarry, a reminder that this valley once was an ocean bed.

Along the way an assortment of birds chirp and sing. Wildflowers at their colorful peak decorate the



Tom Collinsworth

In good weather, Olean Arenholz (right) of La Porte City, Iowa, rides her bicycle daily on the Cedar Valley Nature Trail. Esther Davison accompanies her on a recent excursion. The trail, formerly an abandoned rail line, stretches 52 miles from Waterloo to Cedar Rapids in Iowa.

trailside view as bees hover, then buzz from one flower to the next. Not a scrap of litter is visible.

"A man can go back in there and see new things every time," said Michael Andorf, a former trail opponent who has become one of the path's most impassioned advocates. "A cornfield? Not much new out there."

Andorf and his wife, Beverly, run a hog farm about 10 miles from the trail. They also operate a bed-and-breakfast inn, refreshment stand, gift shop and campground from a 65-year-old farmhouse adjacent to the trail just southwest of Brandon.

"Most farmers' definition of beauty is a weedless cornfield," Andorf said. "If this land belongs to anyone, it belongs to the Indians."

The Andorfs' entrepreneurial activity mirrors that of other people along the trail. Business is better in all of the little towns and hamlets.

"We'd get by if it weren't here, but it's sure nice to have it," said Dave Hopkins, owner of Dave's Chicken House, a restaurant in La Porte City. "Any small town that's right on the trail can gain a lot."

And the business people say they enjoy not only the extra commerce but the visitors themselves.

"The best thing about it is the people we've met," said Beverly Andorf.

Lurking in the background, however, remains the ongoing battle being waged by the trail's implacable foes. Three landowners besides the McKinleys, the farm family that bulldozed the section on its property, are negotiating sale or lease arrangements with state and local officials in the wake of the court ruling here that affirmed the owners' rights to the land.

To date, only the McKinleys have removed the trail.

"Some of these people act as if we did this out of spite," McKinley said. "I have nothing against bicyclists. . . . We just want to be treated fair."

Some trail boosters concede that McKinley and other landowners could have been dealt with more diplomatically as the process unfolded. They urge Missouri officials to consult early, sympathetically and often with farmers and others along the Katy path to avoid such situations.

But for many here in Iowa, the battle is over — or nearly so.

"I can't believe people are still trying to fight this," Hopkins said.

Figure 2.8 Former Foes Back Trail Portion of a newspaper article from the Kansas City Times about the dispute over the 52-mile Cedar Valley Nature Trail in Iowa (Gillmor, 1988).

noise, litter, trespass, loss of privacy, theft, vandalism, and lowered land values are major concerns for many owners. Convincing residents that their fears are exaggerated, can prevent many conversion problems.

Some nearby residents anticipate that noise from trail users will disturb the neighborhood. Hiking and bicycling, the two most popular activities, are relatively quiet. If snowmobiles or other motorized vehicles are permitted, there use could be restricted to rural areas or sections of the trail not as sensitive to the disturbance. Conversations of trail users may be heard on adjacent property, but these sounds are much quieter than the noise generated from a suburban street or from a railroad (CACEQ, 1975). In some cases, berms, railroad embankments, and plant material can act as a barrier or a screen and block out noise.

Another concern of owners is littering by trail users in the right-of-way and on their property. Trail planners can assure local residents by implementing an aggressive maintenance program. The strategic placement of trash receptacles, the use of "no littering" signs, and active trail enforcement can prevent this potential problem.

Many landowners are concerned that trail users will trespass on their property and their privacy will be invaded. Using "no trespassing" signs, backed up with an aggressive enforcement program can calm many of the fears. But the most effective solution may be the design of the trail itself. Fences, hedges, plant undergrowth, and railroad embankments can act as a barrier and maintain privacy. If the access to private land is reduced, trespassing will be negligible (CACEQ, 1975).

Some of the owners adjacent to proposed trails, are concerned that users will vandalize or steal from their property. But Dave Burwell, president of the Rails-to-Trails Conservancy, states that theft is not a problem. "After all, if someone is going to steal your television, they aren't going to haul it away on the handlebars of their bicycle (Irons, 1987:19). Don Mackie, Director of the Wisconsin State Park System in 1979, stated that, "vandalism on the trail or to adjacent property is nil (Thorson, 1979:7)."

Another concern of residents is that property values will decrease due to the negative impact of the trail. Dave Burwell notes that...

"the biggest fears are dropping property values and crime. But in Iowa, property values have actually gone up; real estate agents are promoting the trail as a recreational area, which it is (Irons, 1987:19)."

On the Elroy-Sparta State Trail in Wisconsin, some landowners feared that trail users would litter, trespass, frighten cattle, and invade their privacy. But working together, the Wisconsin Department of Natural Resources agreed to construct a four wire fence to keep the cattle off the trail, while the landowners agreed to maintain the fence for 20 years. After six years of use, rural landowners found that hikers and bikers did not litter, trespass, or frighten cattle. Instead these users took care of their needs in the towns that were located six to ten miles apart along the trail. In addition, owners found that bikers were not compelled to trespass, because of the natural barriers of overgrowth formed along the trail (Cleckner, 1973) (CACEQ, 1975).

Many communities are uncertain and sometimes apprehensive about the development of railroad trails. According to Don Mackie, "This is a

natural reaction, but fears rapidly subside once the trail becomes operational." Public relations on the Elroy-Sparta State Trail are so good that trail users rate the "friendliness of the townspeople and landowners" as a positive asset of the trail (Thorson, 1979:7).

PREVIOUS RESEARCH ON TRAILS

Limited research has been documented on the attitudes of adjacent residents to proposed or existing trails. But the following three studies have a bearing on this research project.

In 1978, the East Bay Regional Park District in San Francisco, completed a study about the trail impact on adjacent property. This report, one of the first of its kind in the country, surveyed 410 residences of an urban area that were adjacent to two recreational trails. Non-residential property, such as schools and farms were not included in the study. One of the trails, the Lafayette-Moraga, was developed from an abandoned rail line, while the Alameda Creek Trail had been part of a flood control project. The following observations are based on the results of this survey (Table 2.1 Trail Neighbor Survey):

1. A large majority of the residents are satisfied with their trail and think it was a worthwhile expenditure of money.
2. Over 80% believe the trail increased or had no affect on the value of their property. Less than 10% feel their property values have been lowered as a result of the trail.
3. When comparing the new and continuing residents initial reaction to the trail with their current opinions, over 50% of the Lafayette-Moraga and about 25% of the Alameda Creek respondents feel the trail is "better than they expected."
4. A majority of the respondents experience few or no problems with the trail. However, 30% of the Alameda Creek residents have a problem with the dust and noise from illegal cars and motorcycles.

ISSUES	LAFAYETTE- MORAGA TRAIL	ALAMEDA CREEK TRAIL
Households That Use The Trail:	92%	74%
Satisfied With Trail:	90%	86%
Worthwhile Expenditure of Money:	85%	65%
Impact of Trail on Property Value:		
Increased Value	36%	18%
No Affect	48%	72%
Decreased Value	7%	4%
Continuing Residents:		
Attitude to Proposed Trail:		
Excellent-Good	76%	63%
Fair	9%	8%
Poor	14%	15%
Current Attitude to Trail:		
Better Than Expected	53%	26%
About What Expected	40%	60%
Worse Than Expected	7%	13%
New Residents:		
Influenced by Trail to Purchase Home:		
Liked Idea of Living by Trail	56%	33%
Trail Did Not Influence Decision	41%	59%
Disliked Idea of Living by Trail	4%	8%
Current Attitude to Trail:		
Better Than Expected	52%	22%
About What Expected	44%	64%
Worse Than Expected	4%	14%
Problems With Trail:		
No Problems	61%	42%
Noise/Dust From Motorcycles/Cars	8%	30%
Trespassing	11%	3%
Invasion of Privacy	7%	6%
Vandalism	3%	7%
Fire Hazard From Weeds	0%	8%
Other problems were less than 5%		

Table 2.1 Trail Neighbor Survey Attitudes of residents who live adjacent to the Lafayette-Moraga and the Alameda Creek Trails in the East Bay Regional Park District (EBRPD, 1978).

This study indicates that major problems with litter, theft, vandalism, and lowered property values do not occur on trails. In fact, many of the adjacent neighbors found the trail to be "better than they expected." Linear parks and trails have a minimal or positive impact on adjacent property (EBRPD, 1978) (Hornbeck, 1979).

A 1986 study examined the crime rate and real estate values of residential homes and condominiums near the Burke-Gilman Trail in Seattle, Washington. Nearby residents, real estate agents, and police officers were interviewed in the telephone survey. This study indicates that homes located near, but not adjacent to the trail, sell for 6% more than would be expected, due to the proximity of the trail. Homes that front directly on the trail, sell for only slightly higher than average. Burglaries and vandalism at homes adjacent to the trail were below the neighborhood average. About two-thirds of the residents believe the trail improved the "quality of life" in the area (Seattle Engineering Department, 1986) (The Rails-to-Trails Conservancy, 1986, "Property Value Rises Near Rail-Trails").

The Milwaukee Road Corridor Study in 1979, examined the attitudes of adjacent landowners toward a proposed rail-trail in southeastern Minnesota. This study found that three-fourths of the owners were opposed to the trail. In the same study, landowners adjacent to three existing trails in Minnesota and Wisconsin were surveyed. The results indicated that a majority of owners experienced few or no major problems with the trails. A closer examination of both surveys in this study will be included in Chapter III (Genereux, 1979) (Minnesota DNR, 1979-1980).

CHAPTER III

METHODOLOGY

RESEARCH INTENT

The purpose of this study is to document the changes in adjacent landowner perception about converted railroad trails. The main focus is placed on comparing current owner attitudes with their concerns before trail development. Some of the factors that impact adjacent property are examined, such as crime and property valuation. Supporting information is gathered from professionals in their field of knowledge. Groups contacted include trail managers, conservation officers, law enforcement agents, county commissioners, appraisers from city and county offices, and real estate agents.

This research is an indepth study of two selected trails, rather than a random selection of the total 158 rail-trails in the United States. This approach is employed because of the restraints of available time and resources, and the difficulty in identifying all landowners adjacent to the potential trail sites. Due to this focus, the conclusions drawn about the sites in this study may not reflect the conditions in all trails across the country.

The following activities were completed in order to obtain the results for this study:

1. Selection of two study sites based on information gathered from rail-trails in four north-central states.
2. The research of the physical characteristics and historical background of the two sites.
3. Development of owner questionnaire and cover letter, and interview forms for the professionals.
4. Approval of questionnaire and cover letter by the Human Subjects Committee.
5. Pretesting of questionnaire and subsequent revisions.
6. Identification of adjacent landowners and professionals from both trails.
7. Random selection of landowners to be contacted in the survey.
8. Sending advance notification which explains the study, to the selected landowners.
9. Conducting the phone survey of owners and professionals.
10. Sending follow-up questionnaires to owners who were not contacted by phone.
11. Transferring information from questionnaires to coding sheets for input into the computer.
12. Interpretation and analysis of data from the computer.

OPERATIONAL DEFINITIONS

In order to clarify the information presented in this study, the following definitions will apply:

Abandoned Railroad Right-of-Way (ROW) - A ROW which has received approval for abandonment by the Interstate Commerce Commission, the federal court, or any other governmental agency having jurisdiction over railroad property.

Converted Railroad Trail or Rail-Trail - An abandoned railroad right-of-way which was acquired and developed as a recreational or multi-purpose trail.

Small Residential - Private property less than 3.5 acres which is used primarily as a place of residence.

Large Residential - Private property 3.5 to 36 acres which is used primarily as a place of residence but may also include some farmland or a commercial business.

Commercial - Private property which is used in the buying, selling, or production of goods or services excluding farming.

Farmland - Private property which is used for cropland or pasture, but may also be used as a place of residence.

Landowner - Owner, renter, or manager of private property, church land, homeowner association, or a school district.

SITE SELECTION

The site selection process is based on information gathered about rail-trails in four north-central states: Iowa, Illinois, Wisconsin, and Minnesota. These states offered several advantages. As indicated in Figure 2.4, about one-third of all rail-trails are located in this area. In addition, many of these trails have been established for a number of years. Also available are state and local agencies with active rail-trail programs. And finally, this region is close and accessible for easier data collection.

The selection of two sites in Minnesota, the Root River and the Luce Line Trails, is based on the following criteria:

1. Developed trails in current use which are converted from abandoned railroad rights-of-way.
2. Trails that are adjacent to various types of land usage such as suburban, agricultural, commercial, and scenic rural areas.
3. The willingness of the Minnesota Department of Natural Resources (DNR) to provide resources in the completion of the study.

4. Documentation of the opposition or the concern of landowners previous to trail conversion. In the case of the Root River Trail, a study on landowner attitudes had been completed prior to its development.

BACKGROUND OF TRAIL SITES

This section describes the physical characteristics and the historical background of the two trails. Both trails are rather distinctive and represent an opportunity for comparison.

Root River Trail

Physical Description. The Root River Trail is located in an unglaciated area of southeastern Minnesota in Fillmore and Houston Counties (Fig. 3.1 Root River Trail Location Map). The 35-mile trail, which parallels limestone bluffs along the Root River and Watson Creek, offer a variety of visual experiences. The trail passes through the rolling uplands, the transition zone between upland and valley, and the valley floor environment (Fig. 3.2 Rolling Farmland; Fig. 3.3 Trail Along River; Fig. 3.4 Railroad Grade Cut). Portions of Richard J. Dorer Memorial Hardwood Forest along with Lost Lake State Game Refuge are adjacent to the right-of-way. The Root River Trail is one of the most scenic routes in Minnesota (Minnesota DNR, 1979-1980, 1987).

Although the railroad ROW was purchased by the state eight years ago, only 11 miles from Lanesboro to Fountain have a paved surface. The portion east of Lanesboro is under construction and should be completed in late fall of 1988 (Paulson, 1988). Because the eastern section has encountered fewer users, this study will be limited to the western 11-mile section (Fig. 3.5 Root River Trail Survey Area). This includes the downtown businesses in Lanesboro that are adjacent to the paved trail.



Figure 3.1 Root River Trail Location Map Location of Root River Trail in southeastern Minnesota (Generated from Minnesota DNR, 1987).



Figure 3.2 Rolling Farmland Agricultural land along the western end of the Root River Trail near Fountain.



Figure 3.3 Trail Along River Scenic trail following the South Branch of the Root River between Lanesboro and Fountain.



Figure 3.4 Railroad Grade Cut Old railroad grade cut near Lanesboro on the Root River Trail.

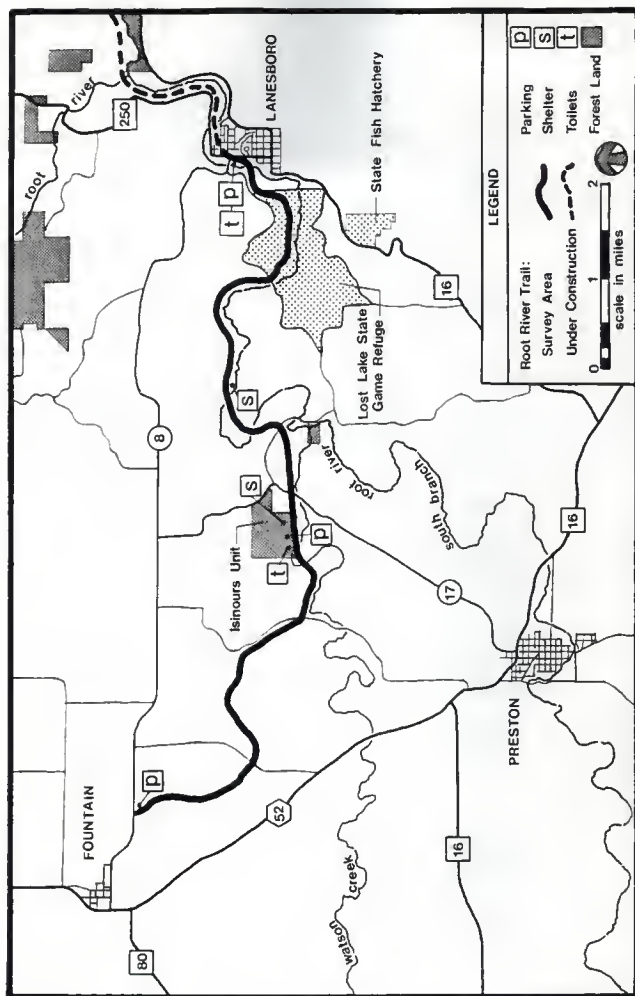



Figure 3.5 Root River Trail Survey Area Survey Area of the Root River Trail from Lanesboro to near Fountain (Generated from Minnesota DNR, 1987).

The headquarters for the Root River Trail is located in historic Lanesboro, a small agricultural based community of 900. Although tourism has not reached its potential, it is a small, but growing industry. Several buildings in town are listed on the National Register of Historic Places. The Lanesboro Community Club and several local businesses promote the trail and other recreational opportunities as an attraction for drawing visitors (Fig. 3.6 Bed & Breakfasts; Fig. 3.7 Lanesboro Brochure) (Historic Bluff Country Bed & Breakfast Association) (Lanesboro Community Club).

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Come, Mary and Russell Messing
Proprietors

Figure 3.6 Bed & Breakfasts Advertising for two Lanesboro Bed & Breakfasts that promote the scenic area and the Root River Trail (Historic Bluff Country Bed & Breakfast Association).

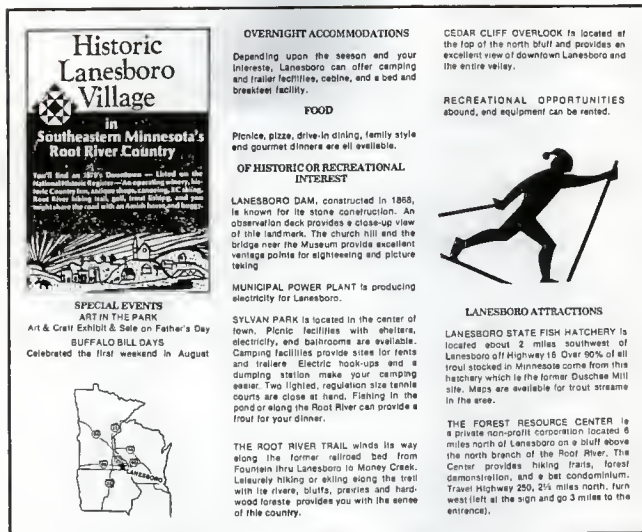


Figure 3.7 Lanesboro Brochure Brochure describing the sightseeing attractions and the recreation opportunities in the historic Lanesboro area (Lanesboro Community Club).

Historical Perspective. The abandoned railroad right-of-way and the scenic quality of the valley have historic significance for the Root River Trail and the Village of Lanesboro (Fig. 3.8 1879 Lanesboro, Fig. 3.9 Historic Main Street). The Southern Minnesota Railroad was completed through Lanesboro in 1868, the same year the town was incorporated. As in many other communities in the mid-west at that time, the railroad was the main line of communication with the outside world. One locomotive, named the "Pusher" was stationed in Lanesboro to help trains out of the valley and onto the prairie (Drake, 1969).



Figure 3.8 1879 Lanesboro Bird's-eye view of Lanesboro and surrounding countryside in 1879 (Drake, 1969).



Figure 3.9 Historic Main Street Historic view of the downtown commercial area in Lanesboro (Reproduced Post Card by Bue, Studio Antiques, Lanesboro).

The Lanesboro Townsite Company, formed in New York to build the new village, had visions that it would become a great resort area. The first building constructed in Lanesboro was a large three story stone hotel to house the expected visitors. A canopy was extended from the hotel to the depot area, so that the guests could be protected from the weather (Fig. 3.10 Locomotive and Hotel). A two-mile human-made lake on the Root River along with the natural beauty of the area, plus fishing and hunting opportunities, were expected to draw many tourists (Fig. 3.11 Root River Valley). These dreams were ended when the hotel was totally destroyed by fire in the early 1880's (Drake, 1969). With the historic and scenic elements of Lanesboro, the valley, and the railroad right-of-way, the trail offers a unique experience.

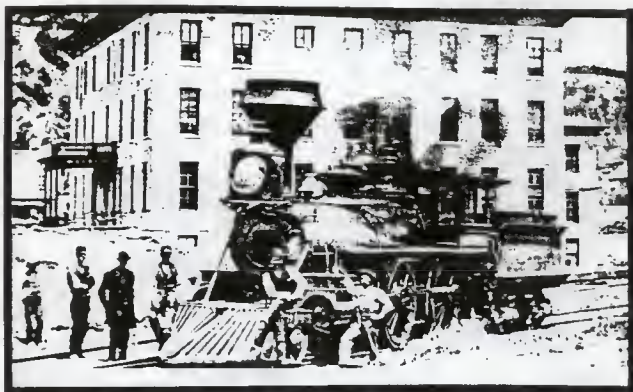


Figure 3.10 Locomotive and Hotel Train locomotive in front of the three story stone hotel in Lanesboro before the turn of the century (Drake, 1969).

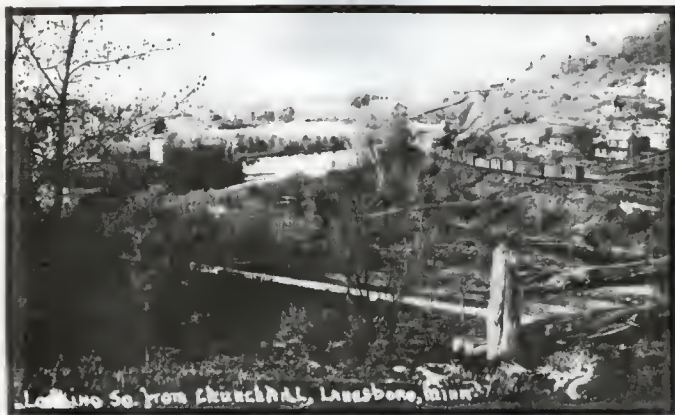


Figure 3.11 Root River Valley Historic view of the railroad and stone dam and falls in the Root River Valley south of Lanesboro (Reproduced Post Card by Bue, Studio Antiques, Lanesboro).

Conversion Process. In 1979, the Chicago, Milwaukee, St. Paul and Pacific Railroad abandoned a 100-mile stretch from the Mississippi River to Ramsey Junction, a point five miles north of Austin. This included a 50-mile track through the Root River Valley. Controversy over the Minnesota DNR's attempt to purchase and develop the right-of-way, resulted in the Milwaukee Road Corridor Study and a public hearing on the proposed acquisition. This study, completed in January of 1980, consisted of nine technical appendices, a social and physical inventory, and a summary of alternative analyses and recommendations. Issues covered included the impact of the trail on adjacent land, local law enforcement problems, and the need for additional trail recreation (Minnesota DNR, RRSTMP).

As part of the social and physical inventory, a survey of adjacent landowners was completed by the private consultants, John and Michele Genereux, Consulting and Research in the Social Sciences. An attempt was made to contact all owners along the Milwaukee Road ROW from Spring Valley to a point east of Hokah, a distance of about 60 miles (Fig. 3.12 1979 Survey Area). About 184 landowners were interviewed by phone or in person between August 7-20, 1979. As part of the study, the DNR staff surveyed a sample of randomly selected landowners along the Heartland, Douglas, and Elroy-Sparta Trails (Fig. 3.13 DNR Trail Location Map). The private consultants compared these results from the trails with the findings from the Milwaukee Road survey (Genereux, 1979).

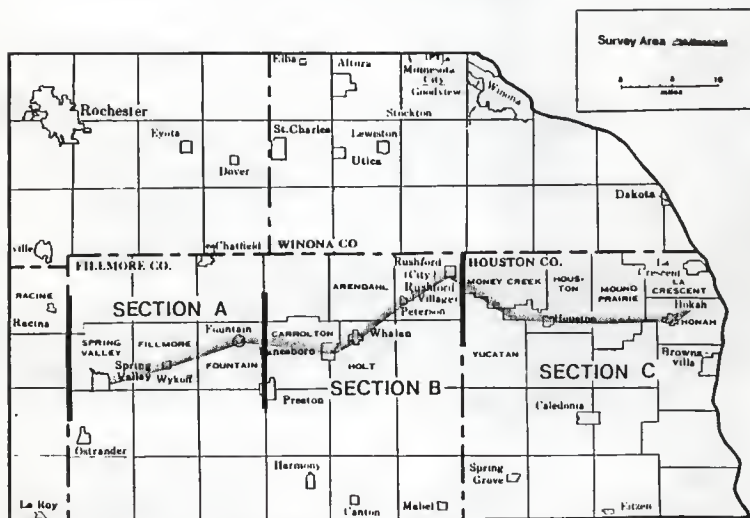


Figure 3.12 1979 Survey Area Survey area along the Milwaukee Road ROW (Genereux, 1979).



Figure 3.13 DNR Trail Location Map Location of the Milwaukee Road ROW and the Heartland, Douglas, and Elroy-Sparta Trails (Minnesota DNR, 1979-1980).

Some of the findings from the two surveys include the following statements (Genereux, 1979):

1. Three-fourths of the respondents are opposed to developing the Root River Trail. Although varying in some areas, both rural and urban landowners generally oppose this project.
2. Types of land use along the Milwaukee Road ROW include:

25% Urban (towns)	60% Rural, farm
2% State-owned	12% Rural, non-farm
3. Most of the owners (88%) in the Milwaukee Road survey would purchase the right-of-way adjacent to their property, if the price was right.
4. A majority of the landowners (68%) do not trust the DNR to maintain the proposed Root River Trail.

5. Landowners in the Milwaukee Road survey anticipate more problems than have been experienced by the owners along the Heartland, Douglas, and Elroy-Sparta Trails. This is more evident on issues such as: vandalism, fence maintenance, trail management, local use of trail, and economic benefits of trails. (Table 3.1 Owner Responses in DNR Study).
6. Analyzing data on a township basis, indicates that owners between Lanesboro and Rushford may be less inclined to strongly oppose negotiating with the DNR about the trail. A majority of these owners oppose this project, but they have fewer land use problems than other sections along the ROW.

According to the report, the problems stated by landowners adjacent to the three existing trails, are concerns rather than actual, negative experiences. Anticipated problems of landowners along the Milwaukee Road right-of-way are based on their mistrust of the DNR and the belief that the trail will exasperate the existing railroad related problems. Many landowners feel that the right-of-way should be considered for farmland before any other types of uses (Genereux, 1979). Although the comparison between the existing and the proposed trails are interesting, trails have individual character and changes in landowner attitudes over time are difficult to anticipate.

In another section of the social and physical inventory, the DNR staff interviewed over the phone law enforcement agents along the Heartland, Douglas, and Elroy-Sparta Trails. The sheriffs had received only a small number of complaints about the trails and none were serious in nature (Minnesota DNR, 1979-1980).

The result of the Milwaukee Road Corridor Study was a recommendation that the DNR acquire 35 miles of the right-of-way from Fountain to Money Creek Woods east of Rushford and a five-mile section near Hokah. The public hearings held in Rushford in March of 1980,

STATEMENTS	AREA	% IN AGREEMENT
"ROW should be kept for railroad"	Milwaukee Road: Segments A & C Segment B Urban	63% 48% 44%
"Loss of railroad service has hurt the community"	Minnesota Trails: Sparta-Elroy:	20% 26%
"If there were a trail in this area, local people would use it"	Milwaukee Road: Segments A & C Segment B Urban	32% 38% 38%
"Local people use and enjoy this trail"	Minnesota Trails: Sparta-Elroy:	95% 78%
"If a trail were built, it wouldn't be long before my land would be full of weeds"	Milwaukee Road: Segments A & C Segment B Urban	53% 38% 49%
"DNR does an excellent job of weed control"	Minnesota Trails: Sparta-Elroy:	52% 41%
"DNR could be trusted to manage a trail"	Milwaukee Road: Segments A & C Segment B Urban	10% 14% 27%
"DNR does an excellent job of managing the trail"	Minnesota Trails: Sparta-Elroy:	90% 67%
"I trust the DNR to maintain fences"	Milwaukee Road: Segments A & C Segment B Urban	10% 19% 8%
"DNR keeps up its end of the bargain about fencing"	Minnesota Trails: Sparta-Elroy:	46% 72%
"The trail would mean more vandalism and other crimes"	Milwaukee Road: Segments A & C Segment B Urban	87% 68% 69%
"Trail users steal"	Minnesota Trails: Sparta-Elroy:	3% 6%
"Summer users trespass"	Minnesota Trails: Sparta-Elroy:	5% 33%
"Winter users trespass"	Minnesota Trails: Sparta-Elroy:	30% 39%
"DNR patrols the trail enough to control users"	Minnesota Trails: Sparta-Elroy:	52% 54%
"A trail would be a bonus for local business"	Milwaukee Road: Segments A & C Segment B Urban	16% 14% 16%
"Having a trail has benefited the local economy"	Minnesota Trails: Sparta-Elroy:	69% 72%

Table 3.1 Owner Responses in DNR Study Comparison of landowner responses between the Milwaukee Road and the DNR Trails (Genereux, 1979).

generated a Report of the Hearing Examiner to the DNR Commissioner (Minnesota DNR, RRSTMP). During the hearings, the following individuals or groups which have a bearing on this study, stated their opposition to the trail (OHESM, 1980):

1. Nine landowners between Fountain and Lanesboro
2. Houston County Commissioner representing the Association of Minnesota Counties, District Nine (11 southeastern counties)
3. Fillmore County Sheriff - Expressed concern about potential problems rather than opposition to the trail.

The following groups supported the trail:

1. Lanesboro Community Club
2. Lanesboro City Council - The council supported the trail in writing, but did not testify at the hearings (Blomer, 1988).

The Commissioner of Natural Resources, authorized by the Legislature in 1979, to determine the acquisition of the Root River Right-of-Way, decided in April of 1980 to proceed with the purchase of 49 miles. Fifteen miles near Austin was established as a State Scientific and Natural Area and 35 miles of the most scenic distance was set aside for the Root River Trail (Minnesota DNR, RRSTMP).

The controversy over the proposed Root River Trail initiated several groups interested in either promoting or defeating the trail (Minnesota DNR, RRSTMP).

Trail Alliances from Lanesboro, Houston, and Austin, testified in favor of the trail at the public hearings.

The Citizens Right to Purchase Property, Inc consisted mostly of adjacent landowners opposed to the trail and supported their acquisition of the right-of-way for personal use.

Lanesboro Community Club which existed prior to trail acquisition, supported the trail.

Lanesboro Trail Club was formed in 1982 after the acquisition in order to represent the trail users in the Lanesboro area.

Luce Line Trail

Physical Description. The Luce Line Trail ROW, located in central Minnesota, extends from Plymouth, a Minneapolis suburb, west to Clara City, a distance of 97 miles (Fig. 3.14 Luce Line Trail Location Map). A hard pack limestone surface has been placed on the first 30 miles to Winsted. The remainder of the trail to the west has been cleared and surfaced graded (Minnesota DNR, 1986).

For this study, only the eastern 19-mile section from Plymouth to Watertown, is included in the survey (Fig. 3.15 Luce Line Trail Survey Area). Land use along this section ranges from residential in Wayzata and Orono to farmland in Carver and western Hennepin Counties (Fig. 3.16 Residential Area; Fig. 3.17 Estate Lot; Fig. 3.18 Farmland By Trail).



Figure 3.14 Luce Line Trail Location Map Location of Luce Line Trail from Plymouth to Clara City in central Minnesota (Generated from Minnesota DNR, 1986).

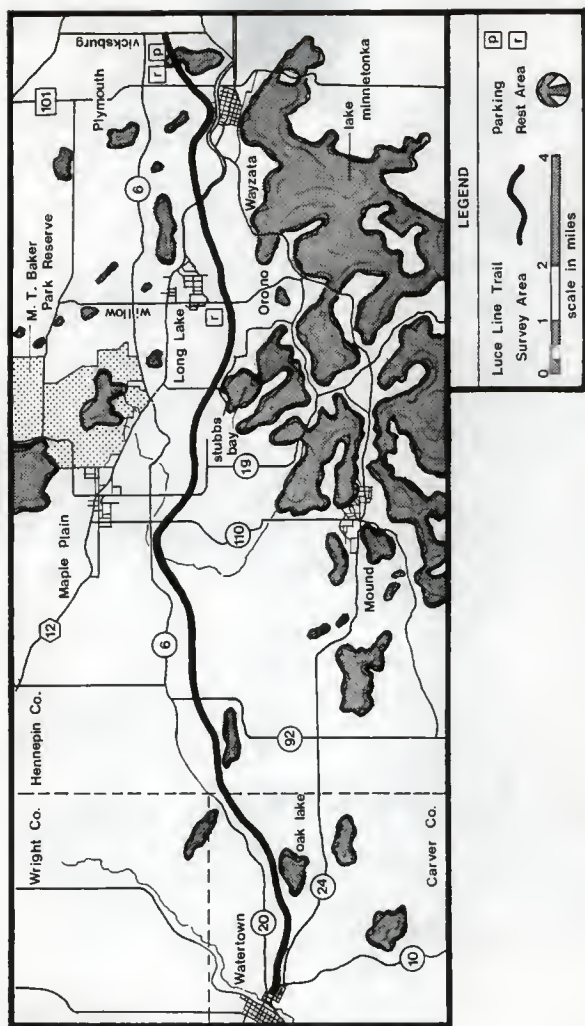


Figure 3.15 Luce Line Trail Survey Area Survey area of the Luce Line Trail from Plymouth to Watertown (Generated from Minnesota DNR, 1986).



Figure 3.16 Residential Area Suburban residential area near Stubbs Bay along the Luce Line Trail.



Figure 3.17 Estate Lot Large residential house located on an estate lot by the Luce Line Trail at Orono.



Figure 3.18 Farmland Near Trail Agricultural land along the Luce Line Trail in western Hennepin County.

The physical land features are also varied in the survey area. Positioned along the Luce Line Trail are lakes, woods, creeks, marshes, and tamarack swamps (Fig. 3.19 Woods Along Trail; Fig. 3.20 Oak Lake). Many of these water features are scattered throughout the residential areas. The topography for the most part is flat on the eastern section and becomes slightly rolling in the central and western portions of the survey area from Orono to Watertown.

Several bridges and underpasses traverse the major roads, railroad tracks, and water features. Most of the minor roads are crossed on-grade, but stop signs are posted on the trail for the safety of the users (Fig. 3.21 Road Bridge; Fig. 3.22 Trail Crossing).



Figure 3.19 Woods Along Trail The Luce Line Trail passing through a wooded area in western Hennepin County.



Figure 3.20 Oak Lake View of Oak Lake from the Luce Line Trail near Watertown in Carver County.



Figure 3.21 Road Bridge Carver Co Rd 10 crossing the Luce Line Trail at Watertown.



Figure 3.22 Trail Crossing On-grade trail crossing at Old Long Lake Road near Wayzata. Trail users yield to the street traffic at these intersections.

The Luce Line is one of the most heavily used trails in the state. As shown in Fig. 3.23 Use of Minnesota Trails, monitoring of this trail from 1981-84 indicates approximately 54,000 user occasions during each summer. This is the same as the combined use on the Heartland, Sakatah Singing Hills, and the Douglas State Trails for this period (Minnesota DNR, 1984). Surveys in recent years indicate the number of user occasions during the summer has increased to 70,000 plus on the first 30 miles (Schmidt, 1988).

Use of Existing Trails

The DNR has monitored summer use on four state trails through on-site counting and surveys of users. Two trails, the Luce Line which runs from suburban Minneapolis to Winsted, and the Heartland which connects Park Rapids and Walker in northern Minnesota, have been monitored since the summer of 1980. The other two, the Sakatah Singing Hills which connects Faribault and Monkata, and the Douglas just outside of Rochester, have been monitored since the summer of 1981.

The preliminary findings of the monitoring program show that during the summer:

- approximately 54,000 user occasions took place on the Luce Line State Trail;
- approximately 37,000 user occasions took place on the Heartland State Trail;
- approximately 5,000 user occasions took place on the Sakatah Singing Hills State Trail;
- approximately 13,000 user occasions took place on the Douglas State Trail;
- approximately 58 percent of all summer use was by bicyclists.

Figure 3.23 Use of Minnesota Trails Preliminary findings of a monitoring program on the summer use of four state trails in Minnesota (Minnesota DNR, 1984).

Historical Perspective. The Luce Line Trail takes its name from W. L. Luce and the railway line he started in 1902. This line, which ran from Minneapolis to Brookings, South Dakota, eventually became known as the Luce Electric Short Line Railway. Because of financial problems in 1927, the line was terminated in Gluek, Minnesota. The Chicago and Northwestern Railroad eventually purchased and owned the right-of-way until its abandonment in 1971 (Minnesota DNR, 1986).

Conversion Process. In 1973, the Minnesota Legislature authorized the Commissioner of Natural Resources to establish, develop, maintain, and operate the Luce Line Trail. Before acquisition of any land could take place, the commissioner was required to develop a management program and conduct public hearings on this proposed program. Included in this plan were sections on fencing to protect the adjacent landowners and on maintenance for a litter free trail (Minnesota DNR, 1973).

Public hearings were conducted at six communities along the trail from September 20 to November 15, 1973. The purpose of the hearings were to inform and receive feedback from the public on the management program. It was not intended as a forum to debate the issue of the existence and creation of the trail. Conclusions drawn from the recordings of the first two hearings held in Orono and Watertown apply to this study (Minnesota DNR, 1973).

1. About 50% of the 31 speakers at the Orono Hearing stated their opposition to either snowmobiles or motorcycles on the trail. Many were vocal in stating current problems of trespassing and noise associated with motor vehicles in the abandoned right-of-way. Some questioned the DNR's ability to police the trail when local law enforcement agencies did not control the problem. Participants were concerned with the uses and the abuses of the proposed trail. Some individuals expressed opposition to snowmobiles at the Watertown Hearing, but it was not as vocal.

Conclusions may be drawn that opposition to motor vehicles may reflect some opposition to the trail itself, although no one stated that fact.

2. Four out of 58 speakers at the two hearings stated their approval of the proposed trail. Based on the types of questions asked during the hearings, other individuals supported the trail, especially at the Orono Hearing.
3. Approximately 20% of the speakers at the two hearings stated their support of snowmobiles on the proposed trail. It is assumed they supported the creation of the trail.
4. Opposition to the trail was more evident at the Watertown Hearing. Several questions challenged the creation of the trail. One asked if severe opposition were encountered at all the meetings, would the trail be developed? Another felt that rural Carver County was supporting the recreation for urban Hennepin County. Others questioned the expense of the trail, gaps in the right-of-way through several communities, adverse possession by some landowners, and the intentions of the state to condemn additional land along the right-of-way. And finally, one person asking about the increase in taxes due to the "amenity" of living next to the trail stated, "...we bought it (land next to a lake) for privacy and paid dearly for it and now we'll pay dearly for that privacy to be invaded..."
5. Based on the types of questions asked at both hearings, several individuals were uncommitted and simply wanted to know how their property was going to be affected.

Most of the opposition to the trail occurred west of Watertown.

At the third hearing in Silver Lake, a trail advocate stated that 90% of the people attending the hearing were opposed to the trail. This opposition was based in the belief that big government was infringing on the rights of adjacent landowners and that most of the right-of-way could be converted to productive farmland (Schmidt, 1988) (Minnesota DNR, 1973) (Kern, 1977).

A majority of the right-of-way from Plymouth to Clara City was purchased in 1974-75 and was designated as a trail in 1976. Sections of the trail through some of the communities, have been purchased in later

years. At the present time, the right-of-way west of Cosmos is in doubt and may be sold back to the adjacent landowners (Collins, 1988) (Minnesota DNR, 1986).

Opposition to motorized vehicles and other concerns expressed at the Orono Hearings in 1973 was a result of unregulated use along the abandoned right-of-way prior to DNR control. But in 1982, after six years of use along the completed 30 mile stretch, many residents were satisfied with the outcome. Richard Sterner of Winsted who was originally opposed to the trail states... "The people I talk to who live along the trail are quite pleased. I had mixed emotions prior to this time, but I've changed my mind completely." Wayzata Mayor Bill Humphrey said, "A few people spoke up (prior to trail development) and said they didn't want people running adjacent to their backyards. But I haven't heard much the last few years. I think most people enjoy it." Kermit Eisinger said that before the trail was developed, there were problems with noise and litter. "But once it was fully developed...I think it's been pretty well used as it was intended to be," he stated (Appendix H: Newspaper Articles) (Brackin, 1982:22).

Many landowners west of Winsted are still opposed to the trail. Recreation supporters believe that their attitudes would change if the trail was completed with a limestone surface. Other trail proponents state that farmer attitudes will be difficult to change as long as they think the trail hurts them financially (Brackin, 1982).

DEVELOPMENT OF QUESTIONNAIRE / INTERVIEW FORMS

The data for this study was collected by using the telephone survey method. There are several reasons for employing this technique.

First, according to Dillman (1978), the telephone survey approach was an acceptable method for gathering research information. Second, the Minnesota Department of Natural Resources in St. Paul offered the use of office space and a telephone WATS line. Third, the speed of data collection with a telephone survey was desirable. And finally, due to a limited testing population on one of the trails, a high response rate was needed for the study. The telephone survey offered the best option for contacting more participants.

The landowner questionnaire and the interview forms are based on four sources of information. First, the landowner questionnaire and the transcript of the telephone surveys with law enforcement agents from the Milwaukee Road Corridor Study (Minnesota DNR, 1979-1980). Second, the trail neighbor and trail user questionnaires from the study at the East Bay Regional Park District, Oakland, California (EBRPD, 1978). Third, the questionnaire of residents and real estate agents from the study on the Burke-Gilman Trail (Seattle Engineering Department, 1986). And finally, the examples of cover letters and questionnaires in Mail and Telephone Surveys: The Total Design Method (1978) by Dillman.

After development of the landowner questionnaire, the instrument was pretested in an interview format first on Dennis Law, Professor of Landscape Architecture at Kansas State University. Professor Law was selected because of his ownership of property adjacent to a proposed trail in Manhattan, Kansas. The questionnaire was revised and was submitted along with an advance letter to the College of Architecture and Design's Human Subject Committee for approval. After some revisions, approval was granted and the questionnaire was pretested by

phone on five landowners adjacent to the Douglas and Heartland Trails in Minnesota. Names of the landowners were obtained from the Minnesota DNR in connection with a previous study. After minor revisions the questionnaire was ready for data collection (Appendix B: Landowner Questionnaire - Telephone Survey; Appendix D: Human Subjects Committee Approval).

The interview forms for the professionals were also developed, but were not pretested or submitted to the Human Subjects Committee. The information gathered from these professionals on the issues of trail desirability, crime, and adjacent property valuation, are considered public knowledge and within the scope of their duties (Appendix G: Interview Forms).

DATA COLLECTION

Charlie Regnier, Research Analyst with the Minnesota DNR, compiled a list of landowners along the two trails. Owner names from the Root River were gathered from the Fillmore County Atlas and Plat Book 1983-85 and from Deborah Erickson, Assistant Clerk for Lanesboro. Names from the Luce Line Trail were compiled from the 1984 Carver County Atlas Plat Book and from the tax rolls at the Hennepin County Government Center. For Hennepin County, half section maps were used to obtain section, township, range, quarter-quarter, and property identification numbers for the adjacent property. These numbers were entered into a computer terminal and the names and addresses were recorded (Appendix E: Owner Identification Process). Additional names and phone numbers were compiled from the Milwaukee Corridor Study and from four phone books: the Ace, Rochester, Contel and Minneapolis Directories.

This process identified 31 private landowners along the Root River and 227 names from the Luce Line. Public land owned by the state, county, or city were eliminated with the exception of school districts. Landowners, renters, and managers of private land, church property, school districts, private country clubs, or property held by companies, partnerships, or homeowner associations were included in the list. Only one person for each property was to be surveyed. Participants owning more than one piece of property were interview only once.

Due to the number of names, the entire Root River list was included in the survey, but it was decided to use only 27.5% of the owners along the Luce Line. Names were selected randomly using the computer. Each name on the list was designated a number from 1 to 227. The sort function on Lotus 1-2-3 randomly sorted this list of numbers. The first 62 number/names (27.5%) were selected for the survey.

The advance letter was sent to 84 of the total 93 names (Appendix A: Advance Letter). Nine addresses were not identified from the available sources. It was anticipated that these addresses and phone numbers would be obtained during the survey from neighboring landowners. The purpose of the advance letter was to inform the subjects of the survey and its goals and to increase participation in the study.

The bulk of the survey was conducted by phone in the offices of the Minnesota DNR, St. Paul during the week of April 11-16, 1988. Some of the calls were made the following week from Manhattan, Kansas. Most of the phone calls were placed from 9:00 am to 9:00 pm. Participants not able to talk during the initial contact were called at a later prearranged time. Nine landowners who were not reached by phone were

sent a cover letter and a questionnaire which was approved through the Human Subjects Committee. The participants were requested to return the questionnaire within two weeks. The survey of landowners was completed on May 10, 1988 (Appendix C: Cover Letter & Landowner Questionnaire-Mail Survey; Appendix D: Human Subjects Committee Approval).

This process identified, 23 on the Root River and 60 on the Luce Line, as actual landowners adjacent to the trail (Table 3.2 Landowners Surveyed). Seventy-four of these owners agreed to participate in the survey, which is an 89% response rate for both trails. The final result is 91% of all landowners on the Root River and 23.5% of all landowners on the Luce Line were surveyed.

A total of 28 professionals were selected for the inquiry. This selection was based on two considerations:

1. The professional's job responsibilities and knowledge of the trail.
2. The professional's area of jurisdiction or representation included all or parts of the trail.

LANDOWNERS IN SURVEY	ROOT RIVER TRAIL	LUCE LINE TRAIL	BOTH TRAILS
Number of Landowners Contacted:	23	60	83
Number of Owners Participating:	21	53	74
Percent of Owners Participating:	91%	88%	89%
Total Percent of Owners Surveyed along each trail:	91%	23.5%	-

Table 3.2 Landowners Participating in Survey

The DNR staff assisted in identifying the seven trail managers and conservation officers assigned to the Root River and Luce Line Trails. The eight law enforcement jurisdictions and the names of the police representatives were gathered from phone books, the DNR staff, and other police personnel. Law enforcement agents who participated in the inquiry included a sheriff, a captain, police chiefs, and officers. The staff at the county courthouses helped to identify the three county commissioners that represented the districts affected by the trails. The names of five appraisers from county or city departments were obtained through the local administrative offices. Five real estate agents were selected from phone books based on their proximity to the trail and information gathered from other professionals. -

The inquiry was conducted in April and October of 1988. The two trail managers were interviewed in person at the Minnesota DNR offices in Rochester and St. Paul. The other 26 professionals were contacted by phone from St. Paul and from Manhattan, Kansas.

ANALYSIS OF THE DATA

After the owner survey process was completed, the information from the questionnaire was transferred to coding sheets. The survey required 114 columns of data or two - 80 column wide coding sheets. Each participant was assigned a number to protect their anonymity and for ease of tabulation. In addition, every answer was also represented by a numeric designation which was one to four columns wide. One line of data represented all the information from one questionnaire.

The raw data from the coding sheets was entered through a computer terminal into a file in the Harris System. John Boyer, Professor of

Statistics at Kansas State University, programmed the data into the University based SAS program. The output was recorded in chart form indicating the numbers and percentages of various population's responses to each question. The results of the study were ready for analysis.

LIMITATIONS OF THE STUDY

This study represents the attitudes of landowners on a section of two trails in Minnesota. This does not necessarily reflect the attitudes of all landowners adjacent to trails in Minnesota or in the rest of the country. Each trail has an individual character and changes in landowner attitudes are sometimes difficult to anticipate. But general conclusions may be drawn from these results.

Although the Root River Trail right-of-way has been owned by the state for eight years, only 11 out of the total 35 miles have been paved. This study is limited to the paved section of the trail, and that distance has been surfaced only in the last two years. Use of the trail has not reached its peak, and the full impact may not be felt. Additional time may be needed for owners to experience all the benefits and disadvantages. Previous research compiled on the Root River eight years ago, surveyed the entire 60 miles of abandoned track, as compared with this studies shorter distance. Comparisons between the two study's may be difficult.

Only the first 19 miles were surveyed on the Luce Line Trail. This study may not represent landowner attitudes on the western portion of the trail, where past opposition was greater.

Participants were asked to recall their attitudes before the construction of the trail, 8 to 14 years ago. For this study, it is

assumed that the respondents are truthful and can accurately remember their past opinions. Several points help to strengthen this assumption:

1. Only landowners who owned property adjacent to the trail before conversion, are asked about their past concerns.
2. These owners were directly affected by the proposed trail and most had strong feelings. Recall was easier.
3. Past concerns of owners are confirmed in hearing testimony, newspaper articles, and in interviews with professionals.
4. This survey documents landowner attitudes and beliefs and not the precise factual account.

In addition, this study also assumes the participant understood the questions and answered correctly. Efforts were made to minimize this problem. The questionnaire was pretested for clarity and organization. Most owners received an advance letter explaining the study. The telephone survey approach allowed participants an opportunity to ask questions and avoid confusion. And the participants also had the option of refusing to answer any or all questions.

With the phone survey method, it is possible that personal contact with the interviewer may influence some respondents. Again, measures were taken to minimize the problem. A standard script was followed throughout the survey and the interviews were conducted in a consistent, neutral manner. No attempt was made to sway any participants opinion. In addition, the pretesting of the questionnaire also helped to eliminate leading questions.

The landowners, who were not contacted by phone, received a cover letter and questionnaire through the mail. Although the survey was the same, these participants may respond differently. But this number only represents 5% of the total respondents.

The time of year the survey is conducted, may influence some respondents. This survey was taken in mid-April, which is before heavy summer use, but after winter user conflicts. Respondents may recall winter problems or benefits over summer time use.

And finally, this study reflects the current attitudes and beliefs of landowners. These opinions may change over time, especially if their concerns are not realized, or if new or existing problems increase.

CHAPTER IV

RESULTS & INTERPRETATIONS

The results and interpretations of the survey of adjacent landowners are divided into the following four sections:

1. Characteristics of owners and property
2. Trail desirability
3. Problems, concerns, and opinions
4. Adjacent property valuations

The first section describes the general traits of the owners and property involved in this study. The types of background information covered includes: age and sex of owner, length and type of ownership, property use and size, and owners use of the trail. These traits help to identify trends in the analysis of the other three sections.

The findings in these sections are studied in several ways:

1. Analyzing current attitudes of selected groups
2. Analyzing past concerns of selected groups
3. Comparing current attitudes with past concerns
4. Examining factors affecting current attitudes

Selected groups under study involve continuing landowners (acquired adjacent property prior to trail development), new owners (purchased adjacent property after trail development), farmland owners

(possess cropland or pasture), and residential owners. These groups were selected because they offer some contrasting viewpoints.

Observations are made on the combined results of both trails, unless special findings on individual trails warrant further discussion. To help with the clarity in the analysis, the Root River and Luce Line Trails, are referred to as RRT and LLT in this chapter.

Supporting information gathered from professionals during the inquiry are included in the analysis of the results from the landowner survey. Trail managers, conservation officers, and law enforcement agents present professional opinions about crime and other problems associated with the trails. Information from county commissioners is used in the opinions section. Appraisers and real estate agents state views on adjacent property valuations.

Tables presenting the major findings of the owner survey, are included in this chapter. Percentages listed in the tables are based on the number of respondents in the survey, except where noted. All percentages are rounded to the nearest one percent. Total percentages for each question may be less than 100% due to the "no response" rate. This "no response" rate is less than 10% for each question.

CHARACTERISTICS OF OWNERS & PROPERTY

Analyzing the characteristics of owners and property indicates the similarities and differences between the two trails. These traits have a bearing on the interpretation of results. The opinions about the trail vary between residential, commercial, and farmland owners, as well as between new and continuing residents. This variation between groups affects the overall rating for the trails.

This section is divided into three areas for interpretation: landowner traits, adjacent property, and owner use of trail.

Landowner Traits

Table 4.1 Characteristics of Landowners describes the respondents. As stated in Chapter III, 91% of the owners along the Root River were surveyed (N = 21), while 23.5% of the Luce Line owners were questioned (N = 53). However, a larger number of respondents contacted were from the Luce Line Trail. The longer distance surveyed plus the higher population densities along the Luce Line, reflect this larger number.

The average age of the RRT and LLT owners is over 50 years (55.3 and 51.4), however all age groups are well represented. The male-to-female ratio is also well balanced (53% to 47%), although more males completed the survey, especially on the Root River. Most of the respondents (96%), live or work next to the trails, but 14% of the RRT owners are absentee landlords with little exposure to the Root River. A vast majority of all participants (96%), own the property adjacent to the trails.

More than one-half of the respondents (58%) owned property before trail development. However, a difference exists between the breakdown in RRT and LLT owners. About one-half of the LLT respondents (51%) purchased property after the conversion of the trail 14 years ago. This indicates a large change in ownership, with fewer respondents involved with the issues during trail development. On the Root River, 81% owned property before trail development, which seems to indicate a population with less change. But comparing the previous landowner survey in 1979, the number of owners along the right-of-way has decreased in the past

CHARACTERISTICS	ROOT RIVER TRAIL	LUCE LINE TRAIL	BOTH TRAILS
Number of Respondents (N)*	21	53	74
Age of Respondent:			
29-45 Years	33%	32%	32%
46-60 Years	24%	45%	39%
> 60 Years	38%	19%	24%
Mean Years**	55.3	51.4	-
Sex of Respondent:			
Male	57%	51%	53%
Female	43%	49%	47%
Live/Work Next to Trail:			
Yes	86%	100%	96%
No	14%	0%	4%
Type of Ownership:			
Own	86%	100%	96%
Rent	5%	0%	1%
Own & Rent	10%	0%	3%
Property Acquisition:			
Before Trail	81%	49%	58%
After Trail	19%	51%	42%
Mean Years Property Owned***			
Before Trail Land	25.3	24.6	-
After Trail Land	4.8	6.7	-
All Property	21.2	15.4	-

* Except where noted

** Number of respondents - 20 Root, 51 Luce

*** Total respondents - 20 Root, 53 Luce

Table 4.1 Characteristics of Landowners

years (Genereux, 1979). Due to the large percent of continuing landowners, the RRT respondents owned their property for a longer time.

Adjacent Property

Table 4.2 Physical Characteristics of Property describes the land use along the trails. Two-thirds of the property is less than 36 acres, but there is a large difference between the two trails. The average property size along the Root River is much greater (216 acres) than on the Luce Line (21 acres). Two-thirds of the RRT land (67%) is larger than 36 acres, while 81% of the LLT property is 36 acres or less.

The trails form a border with three-fourths of the adjacent property. But over 50% of the Root River land is divided by the trail, which could indicate a problem with access.

The land use along the trails is more than one-half small and large residential (59%), about one-third in farmland (cropland and pasture) (36%), and one-tenth in commercial (9%). On the Root River, two-thirds of the property is farmland and one-third is used for commercial, with most of this located in downtown Lanesboro. The Luce Line, on the other hand, is about three-fourths residential with only one-fourth of the property used for farmland. On both trails, wooded areas or water features are located on a considerable amount of land.

A house (residence) is located on a vast majority of the property adjacent to the trails (82%). But on the Root River, only one-half of the property (48%) is used as a place of residence, while one-third has vacant buildings or no major structures. Three-fourths of all the buildings are 500 feet or closer to the trails. However, the average distance on the Root River is much greater (1100 feet).

CHARACTERISTICS	ROOT RIVER TRAIL	LUCE LINE TRAIL	BOTH TRAILS
Number of Respondents (N)*	21	53	74
Acres Owned/Rented:			
< 3.5 Acres	29%	51%	45%
3.5 - 36 Acres	5%	30%	23%
> 36 Acres	67%	19%	32%
Mean Acres	216	21	-
Relationship of Trail to Land:			
Forms Outside Boundary	43%	87%	74%
Divides Property	57%	11%	24%
Current Land Use**			
Small Residential	5%	53%	39%
Large Residential	5%	26%	20%
Commercial	33%	0%	9%
Public use	0%	2%	1%
Cropland, Pasture	67%	25%	36%
Woods	52%	77%	70%
Marsh, Lake, Stream	38%	55%	50%
Other	5%	2%	3%
Structure Type of Property:			
House, Residence	48%	96%	82%
Commercial Building	19%	2%	7%
Vacant Buildings	10%	0%	3%
None	24%	2%	8%
Distance - Trail to Structure:			
< 250 feet	37%	56%	51%
250 - 500 feet	19%	25%	24%
501 feet - .25 miles	19%	17%	18%
>.25 miles	25%	2%	7%
Mean Distance	1100'	350'	-
No. of Respondents	16	52	68

* Except where noted

** Property used for one or more categories

Table 4.2 Physical Characteristics of Property

Owner Use of Trail

Another characteristic of the landowner is their current and potential use of the trails. Table 4.3 Landowner Use of Trail shows a vast majority of the owners and their families/employees (88%) have engaged in one or more activities in the past year. This also includes the use by married children of elderly parents. The three most popular activities for these landowners are: 1) walking hiking, and jogging (86%), 2) bicycling (82%), and 3) cross-country skiing (36%). Luce Line participants generally engage in more activities and more often than individuals on the Root River. Activities in which few respondents participate include: camping, snowmobiling, picnicking, and horseback riding. This may be due to the limited interest in these activities, the lack of designated areas such as for camping, or the use restrictions in some sections of the trail such as for snowmobiling.

Table 4.4 Allowed Trail Activities indicates the types of activities that owners would encourage, if they managed the trails. A overwhelming majority of the respondents would permit bicycling, walking/jogging, and cross-country skiing. About one-half also approve of horseback riding and picnicking. However, hunting and snowmobiling, which are permitted in restricted areas, would not be allowed by these owners. In addition, the majority of residents do not want to add other uses such as motorized trail bikes, night-time use, or camping. On the Luce Line, conflicts between users sometime occur with existing activities such as cross-country skiing and snowmobiling. Adding more uses would compound some of the problems experienced on this heavily used trail.

FAMILY/EMPLOYEE USE OF TRAIL THIS PAST YEAR	ROOT RIVER		LUCE LINE		BOTH TRAILS	
TYPE OF ACTIVITIES	OFTEN	SOMETIME	NEVER	OFTEN	SOMETIME	NEVER
Yes	81%	91%	88%			
No	14%	8%	9%			
Number of Respondents:	21	53	74			
	ROOT RIVER TRAIL		LUCE LINE TRAIL		BOTH TRAILS	
	OFTEN	SOMETIME	NEVER	OFTEN	SOMETIME	NEVER
Snowmobiling	6%	6%	88%	0%	2%	98%
Cross Country Skiing	6%	24%	71%	23%	17%	60%
Horseback Riding	0%	12%	88%	4%	4%	92%
Bicycling	29%	59%	12%	40%	40%	21%
Camping	0%	0%	100%	0%	0%	100%
Walking/Hiking/Jogging	29%	59%	12%	69%	31%	0%
Commuting	6%	0%	94%	4%	10%	85%
Picnicking	0%	12%	88%	0%	6%	94%
Other Activities	0%	12%	-	0%	2%	-
Number of Respondents:	17			48		65

Table 4.3 Landowner Use of Trail

TYPE OF ACTIVITIES	ROOT RIVER TRAIL			LUCE LINE TRAIL			BOTH TRAILS		
	YES	NO	DM*	YES	NO	DM*	YES	NO	DM*
Picnicking	62%	14%	19%	51%	42%	6%	54%	34%	9%
Camping	43%	43%	10%	23%	74%	2%	28%	65%	4%
Night Time Use	33%	29%	33%	28%	66%	4%	30%	55%	12%
Motorized Trail Biking	5%	81%	10%	9%	83%	6%	8%	82%	7%
Bicycling	81%	5%	10%	96%	2%	0%	92%	3%	3%
Walking or Jogging	76%	5%	14%	96%	2%	0%	91%	3%	4%
Snowmobiling	24%	52%	19%	17%	81%	0%	19%	73%	5%
Hunting	24%	57%	14%	9%	89%	0%	14%	73%	4%
Horseback Riding	29%	52%	14%	70%	17%	11%	58%	27%	12%
Cross-Country Skiing	76%	5%	10%	96%	2%	0%	91%	3%	3%
Other Activities	5%	-	-	2%	-	-	3%	-	-
Number of Respondents:	21			53			74		

* Doesn't Matter

Table 4.4 Allowed Trail Activities

Findings on Owner & Property Characteristics

Several findings can be summarized about the landowners and their property that is adjacent to the trails.

1. Over three-fourths of the Root River (81%) and one-half of the Luce Line respondents (49%), owned property before trail development. Years of ownership along the Root River are generally longer.
2. Average property size is larger along the Root River (216 acres) compared with the Luce Line (21 acres).
3. Three-fourths of all property forms an outside boundary with the trail. However, 52% of the Root River property is divided by the trail.
4. Land use along the trails vary (property may be included in several categories):

	Root River	Luce Line	Both Trails
Residential	10%	79%	59%
Farmland	67%	25%	36%
Commercial	33%	0%	9%

5. Most of the property adjacent to the trails (82%) is used as a place of residency. But one-third of the RRT property has vacant buildings or no structure. Three-fourths of all structures are 500 feet or closer to the trails, but on the Root River, the average distance is 1100 feet.
6. Most of the respondents or their families/employees (88%) have used the trails in the past year. The most popular activities for owners who use the trail are: 1) walking, hiking, and jogging (96%); 2) bicycling (82%); and 3) cross-country skiing (36%).
7. The majority of owners would allow: bicycling, walking and jogging, cross-country skiing, picnicking, and horseback riding. Hunting, snowmobiling, motor trail bikes, camping, and night-time use would be restricted by the majority of owners.

TRAIL DESIRABILITY

Respondents in the survey were asked to rate the desirability of the trails. Table 4.5 Current Trail Desirability shows that a large majority of owners (73%) view the trails as a desirable feature. Owners

TRAIL DESIRABILITY	ALL OWNERS	FARMLAND OWNERS	RESIDENTIAL OWNERS
=====			
Root River Trail:			
Desirable Feature	52%	43%	100%
No Factor	24%	21%	0%
Undesirable Feature	24%	36%	0%
No. of Respondents:	21	14	2*
Luce Line Trail:			
Desirable Feature	81%	69%	86%
No Factor	8%	8%	7%
Undesirable Feature	9%	15%	7%
No. of Respondents:	53	13	42
Both Trails:			
Desirable Feature	73%	56%	86%
No Factor	12%	15%	7%
Undesirable Feature	14%	26%	7%
No. of Respondents:	74	27	44

* Number of respondents too low for an accurate measurement.

Table 4.5 Current Trail Desirability

of farmland (cropland or pasture), which represent 36% of all respondents, consider the trails desirable (56%), but not as favorable as all landowners (73%). In contrast, residential owners, which are 59% of all participants, view the trails as a more desirable feature (86%) compared with all landowners. LLT owners (81%) perceived the trail to be higher in desirability than RRT owners (52%). The reasons for the lower rating on the Root River may be due to the number of rural landowners who feel the trail is undesirable (36%).

Many of the owners had different opinions about the trails prior to development. Table 4.6 Position Before Development represents the position held by respondents who owned property adjacent to the railroad

right-of-way before trail conversion (continuing owners). An equal number of these owners favored or opposed the trails (44% to 40%). However, farmland owners were against the proposed trails (68%), while non-farming owners favored development (67%).

Over one-half of the RRT owners were against the proposed trail (53%). Most of the opposition came from rural landowners who were against the project (82%). The non-farming respondents, which consisted of owners in Lanesboro, generally favored the trail (67%) and saw it as an opportunity to increase tourism and economic growth. By contrast, over one-half of the LLT owners (54%) supported the proposed trail. The non-farming respondents, which consisted of suburban residential owners, favored development (67%), while more farmers opposed the project (50%).

POSITION BEFORE TRAIL	ALL CONTINUING OWNERS	CONTINUING FARMLAND OWNERS	CONTINUING NON-FARM OWNERS
=====	=====	=====	=====
Root River Trail:			
Favor	29%	9%	67%
Unsure	18%	9%	33%
Against	53%	82%	0%
No. of Respondents:	17	11	6
Luce Line Trail:			
Favor	54%	25%	67%
Unsure	15%	25%	11%
Against	31%	50%	22%
No. of Respondents:	26	8	18
Both Trails:			
Favor	44%	16%	67%
Unsure	16%	16%	17%
Against	40%	68%	17%
No. of Respondents:	43	19	24

Table 4.6 Position Before Development

Comparison of Desirability

Landowner attitudes about the Root River and the Luce Line Trails have greatly improved since their establishment several years ago. Table 4.7 Comparison of Desirability illustrates the change between the current desirability and the opinions in the past. The current desirability rating of continuing owners (63%) is much higher than their position on the trails before development (44%). On the other hand, when new owners purchase their property after trail development, a large majority already considered the trail a desirable feature (71%). Several stated that the proximity of the trail was one of the reasons for acquiring the property. Now these owners currently view the trail even more favorable (87%). In addition, the new owners give the trails a much higher desirability rating than continuing residents.

The reasons for the increase in the desirability rating vary on the two trails. On the Root River, 53% were against the proposed Root River Trail, but now 53% count this trail as desirable. Commercial owners continue to be supportive, but the change in attitude has come from the farming community. Two-thirds of these rural owners now rate the trail desirable or "no factor." In addition, since a vast majority of residents owned their property before the trail, most of the improvement in the desirability is due to a change in the attitudes of these continuing owners ($N = 17$), rather than new residents ($N = 4$).

However, on the Luce Line, the improvement in the desirability rating is due to two reasons. Owners who possessed property before the trail, now perceive it as more desirable (69% to 54%). But the greatest impact is the large percent of owners that are new residents who

		CONTINUING OWNERS POSITION BEFORE DEVELOPMENT			CONTINUING OWNERS CURRENT DESIRABILITY		
TRAILS	NO.	FAVOR	UNSURE	AGAINST	DESIRABLE FEATURE	NO FACTOR	UNDESIRABLE FEATURE
Root River Trail	17	29%	18%	53%	53%	18%	29%
Luce Line Trail	26	54%	15%	31%	69%	8%	19%
Both Trails	43	44%	16%	40%	63%	12%	23%

		NEW OWNERS DESIRABILITY WHEN PURCHASING PROPERTY			NEW OWNERS CURRENT DESIRABILITY		
TRAILS	NO.	DESIRABLE FEATURE	NO FACTOR	UNDESIRABLE FEATURE	DESIRABLE FEATURE	NO FACTOR	UNDESIRABLE FEATURE
Root River Trail	4	25%	75%	0%	50%	50%	0%
Luce Line Trail	27	78%	19%	4%	93%	7%	0%
Both Trails	31	71%	26%	3%	87%	13%	0%

Table 4.7 Comparison of Desirability

overwhelmingly view the trail as desirable (93%). Many of these owners were influenced to purchase their property because of the proximity of the trail.

Factors Affecting Desirability

Table 4.8 Selected Factors Affecting Desirability indicates four factors that contribute to the desirability rating of the trails: 1) past owner desires for right-of-way, 2) owner use of trail, 3) trail proximity relationship, and 4) distance of structure to trail.

Owners who were prevented from purchasing the right-of-way in the past, rate the trails lower in desirability than owners who did not view it as a problem. Approximately 50% of the owners who regarded the right-of-way purchase a past concern, still view the trail as undesirable. Most owners who have no problem with the purchase, rate the trail desirable.

Landowners use of the trail has some impact on the desirability rating. A vast majority of landowners who use the trail rate it desirable. But a few owners consider the trails undesirable or "no factor" and still use the trail.

The physical relationship of the trail to the property may affect the desirability. A majority of owners who have property that forms an outside boundary with the trail, rate the trail desirable. In addition, about one-half of the owners with property divided by a trail, view it as undesirable. Divided property may experience more problems due to the double exposure, and this results in a lower rating.

The distance of the owners structure to the trail, has little impact on the desirability rating. Respondents with structures closer

TRAIL DESIRABILITY	PREVENT PURCHASE OF ROW		LANDOWNER USE OF TRAIL		RELATIONSHIP OF TRAIL TO PROPERTY		DISTANCE OF STRUCTURE TO TRAIL	
	NO PROBLEM	MIN/MAJ PROBLEM	YES	NO	OUTSIDE BORDER	DIVIDES PROPERTY	NO STRUCTURE	>250 FEET
Root River Trail:								
Desirable Feature	35%	18%	52%	0%	29%	24%	0%	33%
No Factor	12%	6%	14%	10%	14%	10%	5%	10%
Undesirable Feature	0%	29%	14%	5%	0%	24%	19%	5%
Number of Respondents:	17		21		21		21	
Luce Line Trail:								
Desirable Feature	50%	19%	87%	4%	75%	4%	2%	38%
No Factor	0%	8%	6%	2%	8%	0%	0%	2%
Undesirable Feature	0%	19%	8%	2%	4%	6%	0%	2%
Number of Respondents:	26		53		53		53	
Both Trails:								
Desirable Feature	44%	19%	70%	3%	62%	9%	1%	36%
No Factor	5%	7%	8%	4%	9%	3%	1%	4%
Undesirable Feature	0%	23%	9%	3%	3%	11%	5%	3%
Number of Respondents:	43		74		74		74	

Table 4.8 Selected Factors Affecting Desirability

than 250 feet or further than 250 feet, both rate the trails equally desirable. However, most landowners who have no structures on their property, view the trails as undesirable.

Based on these four factors, many of the owners who currently rate the trails undesirable, wanted to develop the right-of-way in the past and at the present time, have little or no contact with the trails. It is possible these owners may never view the trails as a desirable feature, even if they experience few or no problems.

Findings on Trail Desirability

The major findings on the desirability of the trails can be summarized with the following points.

1. About three-fourth of the landowners view the trails as a desirable feature (73%). New residents rate the trails higher than continuing owners (87% to 56%). Residential owners regard the trails more desirable than farmland owners (86% to 56%). LLT owners perceive the trail to be higher in desirability than RRT owners (81% to 52%).
2. The current desirability rating of the trails is much higher than the opinions of the owners in the past. Prior to development, 44% of the continuing owners favored the trails, but now 63% find them desirable. When new owners purchase their property, 71% rated the trails desirable, as compared with 87% who now view them as a desirable feature.
3. The increase in the desirability rating on the Root River is due to a change in the attitude of the continuing residents who own farmland. The increase on the Luce Line is because of changes in two groups: 1) continuing owners who now rate the trail higher, and 2) a large percent of owners that are new residents who overwhelmingly view the trail desirable.
4. The following general characteristics reflect owners who tend to view the trails more undesirable, however not every trait applies to each owner. 1) Owners who intended to purchase and develop the right-of-way, but were prevented by the establishment of the trail. 2) Owners whose property is divided by the trail. 3) Owners who do not live on the adjacent property or work in a commercial building next to the trail.

PROBLEMS, CONCERNS, & OPINIONS

Landowners were questioned about the type and degree of problems and concerns experienced from before trail development to the present. Table 4.9 Current Problems of Owners shows that a vast majority of landowners do not experience major problems with the trail. However, four issues are of some concern for 25% to 33% of the residents: loss of privacy, trespass, litter, and access to their property. In addition, one-fourth of all respondents have major problems which are not listed in the table. But most of these problems are experienced by owners when using the trail, rather than as an adjacent landowner (Appendix F: Comments of Landowners).

Farmland owners on the other hand, perceive more problems with the trails, than do residential or commercial owners (Table 4.10 Current Problems of Farmland Owners). This may be due to actual negative experiences or to a past negative bias towards the trails. One-fourth of these owners consider trespass, loss of privacy, litter, and poor access a major problem (Fig. 4.1 Farmer Access). And yet, a vast majority of farmland owners experience no major problems with the trails.

Trail user requests for help, is a problem for 36% of the farmland owners and 16% of all residents. Table 4.11 Trail User Requests shows that users have asked one-third of all landowners for help. The type of assistance most requested was for using the telephone, wanting directions, and asking for a drink of water.

Prior to trail development, landowners were concerned about many issues. Table 4.12 Pre-development Concerns indicates about one-half of

PROBLEMS	ROOT RIVER TRAIL			LUCE LINE TRAIL			BOTH TRAILS		
	NONE	MINOR	MAJOR	NONE	MINOR	MAJOR	NONE	MINOR	MAJOR
Access Problems	67%	14%	14%	81%	4%	15%	77%	7%	15%
Interrupted Drainage	95%	0%	0%	91%	6%	4%	92%	4%	3%
Reduce Productive Use	76%	5%	14%	89%	6%	6%	85%	5%	8%
Weed Problems	76%	10%	10%	87%	9%	4%	84%	9%	5%
Loss of Privacy	62%	19%	14%	66%	21%	13%	65%	20%	14%
Noise	90%	5%	0%	74%	15%	11%	78%	12%	8%
Stealing	76%	10%	10%	85%	6%	9%	82%	7%	9%
Harassment of Farm Animals	76%	10%	10%	89%	6%	6%	85%	7%	7%
Vandalism	81%	5%	10%	87%	6%	8%	85%	5%	8%
Litter	67%	19%	10%	72%	13%	15%	70%	15%	14%
Trespass	67%	14%	14%	68%	17%	15%	68%	16%	15%
Trail Users Ask For Help	86%	10%	5%	83%	11%	6%	84%	11%	5%
Other Problems	-	0%	19%	-	21%	28%	-	15%	26%
Number of Respondents:	21			53			74		

Table 4.9 Current Problems of All Landowners

PROBLEMS	ROOT RIVER TRAIL			LUCE LINE TRAIL			BOTH TRAILS		
	NONE	MINOR	MAJOR	NONE	MINOR	MAJOR	NONE	MINOR	MAJOR
Access Problems	57%	21%	14%	54%	8%	38%	56%	15%	26%
Interrupted Drainage	93%	0%	0%	77%	15%	8%	85%	7%	4%
Reduce Productive Use	64%	7%	21%	77%	0%	23%	70%	4%	22%
Weed Problems	79%	14%	0%	77%	15%	8%	78%	15%	4%
Loss of Privacy	43%	29%	21%	62%	8%	31%	52%	19%	26%
Noise	86%	7%	0%	54%	15%	31%	70%	11%	15%
Stealing	64%	14%	14%	85%	8%	8%	74%	11%	11%
Harassment of Farm Animals	64%	14%	14%	54%	23%	23%	59%	19%	19%
Vandalism	71%	7%	14%	69%	8%	23%	70%	7%	19%
Litter	57%	21%	14%	54%	8%	38%	56%	15%	26%
Trespass	50%	21%	21%	46%	23%	31%	48%	22%	26%
Trail Users Ask For Help	79%	14%	7%	54%	23%	23%	67%	19%	15%
Other Problems	-	0%	29%	-	8%	38%	-	4%	33%
Number of Respondents:	14			13			27		

Table 4.10 Current Problems of Farmland Owners



Figure 4.1 Farmer Access Access for a dairy farmer across the Root River Trail to his fields.

ISSUES	ROOT RIVER TRAIL	LUCE LINE TRAIL	BOTH TRAILS
=====			
Trail User Asking For Help:			
Yes	29%	38%	35%
No	67%	60%	62%
No. of Respondents	21	53	74
Type of Assistance Requested*			
Telephone	2	13	15
Bathroom	0	4	4
Drink of Water	2	9	11
Get Directions	4	11	15
Buy/Borrow Gas	0	1	1
Borrow Tools	0	6	6
Other	3	7	10
No. of Respondents	6	20	26

* Data listed in raw numbers

Table 4.11 Trail User Requests

PRE-DEVELOPMENT CONCERNS		ALL CONTINUING LANDOWNERS			CONTINUING FARMLAND OWNERS		
		ROOT RIVER	LUCE LINE	BOTH TRAILS	ROOT RIVER	LUCE LINE	BOTH TRAILS
Access Problems:	None	41%	50%	47%	18%	25%	21%
	Minor	24%	15%	19%	36%	25%	32%
	Major	35%	35%	35%	45%	50%	47%
Interrupted Drainage:	None	71%	88%	81%	55%	62%	58%
	Minor	29%	8%	16%	45%	25%	37%
	Major	0%	4%	2%	0%	13%	5%
Reduce Productive Use:	None	71%	69%	70%	55%	62%	58%
	Minor	18%	12%	14%	27%	0%	16%
	Major	12%	19%	16%	18%	38%	26%
Weed Problems:	None	47%	73%	63%	27%	62%	42%
	Minor	24%	4%	12%	36%	13%	26%
	Major	24%	23%	23%	27%	25%	26%
Loss of Privacy:	None	47%	54%	51%	27%	37%	32%
	Minor	24%	12%	16%	27%	13%	21%
	Major	24%	35%	30%	36%	50%	42%
Noise:	None	41%	46%	44%	27%	25%	26%
	Minor	35%	19%	26%	36%	25%	32%
	Major	18%	35%	29%	27%	50%	37%
Stealing:	None	41%	54%	49%	18%	50%	32%
	Minor	18%	8%	12%	18%	0%	11%
	Major	41%	38%	40%	64%	50%	58%
Harass Farm Animals:	None	47%	81%	67%	18%	62%	37%
	Minor	24%	8%	14%	36%	13%	26%
	Major	29%	12%	19%	45%	25%	37%
Vandalism:	None	41%	42%	42%	18%	37%	26%
	Minor	29%	23%	26%	36%	13%	26%
	Major	29%	35%	33%	45%	50%	47%
Litter:	None	41%	50%	47%	18%	25%	21%
	Minor	6%	19%	14%	9%	37%	21%
	Major	47%	31%	37%	64%	37%	53%
Trespassing:	None	47%	42%	44%	18%	50%	32%
	Minor	18%	15%	16%	27%	0%	16%
	Major	35%	42%	40%	55%	50%	53%
Number of Respondents:		17	26	43	11	8	19

Table 4.12 Pre-development Concerns

the continuing owners anticipated problems with vandalism, trespass, noise, access, stealing, litter, and loss of privacy. Farmland owners expressed much more concern than did residential or commercial owners. A majority of these farmers expected problems with almost all of the issues in the table.

Comparison of Problems With Concerns

The concerns anticipated by continuing owners before trail development, are greater than the current problems experienced by these same respondents. Table 4.13 Comparison of Problems With Concerns shows that on all issues, the past concerns are greater than the current problems. In several cases, the change has been dramatic. Most of the continuing owners (59%) considered vandalism a concern in the past, but now 79% experience no current problem. Stealing was a concern for 52% of the residents, but at the present time, 74% have no theft problem. On both trails, problems experienced by continuing owners with access, noise, litter, and trespassing are much lower than the level of pre-development concern. Although continuing residents experience fewer problems than originally anticipated, new owners report even fewer difficulties. This is more evident on the issues of loss of privacy, where almost one-half of the continuing residents (44%) state some type of problem. New owners, who view the trails more desirable, experience few or no problems. This is not a major factor on the Root River, but on the Luce Line, new residential owners represent one-half of all residents. As older landowner are replaced, the trail may be perceived to have fewer problems due to the more tolerant nature of the new residents.

CONTINUING OWNER ISSUES		CURRENT PROBLEMS			PRE-DEVELOPMENT CONCERNS		
		ROOT RIVER	LUCE LINE	BOTH TRAILS	ROOT RIVER	LUCE LINE	BOTH TRAILS
Access Problems:	None	65%	69%	67%	41%	50%	47%
	Minor	18%	4%	9%	24%	15%	19%
	Major	12%	27%	21%	35%	35%	35%
Interrupted Drainage:	None	94%	81%	86%	71%	88%	81%
	Minor	0%	12%	7%	29%	8%	16%
	Major	0%	8%	5%	0%	4%	2%
Reduce Productive Use:	None	76%	77%	77%	71%	69%	70%
	Minor	6%	12%	9%	18%	12%	14%
	Major	12%	12%	12%	12%	19%	16%
Weed Problems:	None	76%	73%	74%	47%	73%	63%
	Minor	12%	19%	16%	24%	4%	12%
	Major	6%	8%	7%	24%	23%	23%
Loss of Privacy:	None	53%	54%	53%	47%	54%	51%
	Minor	24%	19%	21%	24%	12%	16%
	Major	18%	27%	23%	24%	35%	30%
Noise:	None	88%	54%	67%	41%	46%	44%
	Minor	6%	23%	16%	35%	19%	26%
	Major	0%	23%	14%	18%	35%	29%
Stealing:	None	71%	77%	74%	41%	54%	49%
	Minor	12%	4%	7%	18%	8%	12%
	Major	12%	19%	16%	41%	38%	40%
Harass Farm Animals:	None	71%	81%	77%	47%	81%	67%
	Minor	12%	12%	12%	24%	8%	14%
	Major	12%	8%	9%	29%	12%	19%
Vandalism:	None	82%	77%	79%	41%	42%	42%
	Minor	0%	8%	5%	29%	23%	26%
	Major	12%	15%	14%	29%	35%	33%
Litter:	None	59%	65%	63%	41%	50%	47%
	Minor	24%	12%	16%	6%	19%	14%
	Major	12%	23%	19%	47%	31%	37%
Trespassing:	None	65%	65%	65%	47%	42%	44%
	Minor	18%	19%	19%	18%	15%	16%
	Major	12%	15%	14%	35%	42%	40%
Number of Respondents:		17	26	43	17	26	43

Table 4.13 Comparison of Problems With Concerns

Professionals Opinion on Trail Problems

According to law enforcement agents, conservation officers, and the trail managers, few incidents of crime or major problems have occurred on the trails. The Luce Line, which is near an urban area and is heavily used, has reported most of the cases. One suburban house adjacent to the trail was burglarized twice. The owner was convinced the Luce Line contributed to the problem. However, according to police, the trail was not a factor in the theft. Some of the other problem that have occurred include:

1. A few cases of indecent exposure
2. An accident involving a snowmobile striking a trail hiker
3. A dog attacking a trail user
4. Reports of stolen bikes and gas

More of the complaints to law enforcement agents and conservation officers, come from trail users with landowners reporting fewer problems. Most of these problems are infractions rather than crime. Some of the violations include:

1. Vehicles on the trail such as three-wheelers, dirt bikes, snowmobiles, and motorcycles
2. Hunting violations
3. Trespass
4. Snowmobile trespass and noise
5. Vandalism, litter, and dumping on the trail
6. A few cases of consumption
7. Unleashed dogs on the trail

One law enforcement agent, who now feels the trail is an asset to the community, expressed concern on several issues prior to development. This professional anticipated problems with vandalism and theft, regulation enforcement, and access for emergency vehicles. But the main problem was the oversight of the Department of Natural Resources (DNR)

to involve the local law enforcement agencies in the early planning stages of the trail. However, after public hearings the DNR began to work with local agencies.

According to law enforcement agents, there has been little or no increase in their work load as a result of the trails. However, a few of the professionals offered suggestions or comments about specific problems:

1. The Luce Line allows too many different types of activities, especially in the winter.
2. Luce Line Trail users park on the side of the road at Co Rd 19 and Co Rd 110. A parking lot at either location would solve the problem.
3. Location signs to the Isinours Unit parking lot near the Root River Trail, would help to relieve some of the congestions problems in Lanesboro.
4. Trail crossing signs placed on county roads are needed to prevent accidents on several blind intersections on the Root River Trail.
5. On the Root River Trail, several biking accidents have occurred on steep grades in the Lost Lake State Game Refuge near Lanesboro. Rail-trails usually have gentle grades, but this design is a result of a land exchange with a local farmer.

Current Landowner Opinions

Landowners were surveyed about their current opinions on trail problems and other issues. Table 4.14 Current Opinions indicates that a vast majority of owners (80%) believe that trails have not increased the rate of violent crime. In addition, about three-fourths of all landowners (76%) feel secure about their safety on their property. But a couple of the individuals who expressed concern with this issues, stated that reports of indecent exposure was the reason.

CURRENT OPINIONS OF ALL LANDOWNERS	ROOT RIVER TRAIL		LUCE LINE TRAIL		BOTH TRAILS	
	AGREE	DISAGREE	AGREE	DISAGREE	AGREE	DISAGREE
Trail has increased rate of violent crime:	0%	90%	17%	75%	12%	80%
Less secure about safety on property due to trail:	10%	81%	21%	74%	16%	76%
Summer trail users cause few problems:	95%	0%	87%	9%	89%	7%
Winter trail users cause few problems:	86%	5%	79%	17%	81%	4%
DNR patrols trail enough to control users:	24%	0%	28%	40%	27%	43%
DNR does a good job maintaining the trail:	57%	19%	81%	11%	74%	11%
Local people use and enjoy the trail:	71%	5%	94%	4%	88%	4%
Trail is a worthwhile expenditure of money:	48%	24%	79%	15%	70%	11%
Trail has benefited the local economy:	57%	14%	28%	34%	36%	34%
Number of Respondents:	21		53		74	

CURRENT FARMLAND OWNER OPINIONS	ROOT RIVER TRAIL		LUCE LINE TRAIL		BOTH TRAILS	
	AGREE	DISAGREE	AGREE	DISAGREE	AGREE	DISAGREE
Trail has increased rate of violent crime:	0%	86%	31%	69%	15%	78%
Less secure about safety on property due to trail:	14%	71%	36%	54%	26%	63%
Summer trail users cause few problems:	93%	0%	69%	23%	81%	11%
Winter trail users cause few problems:	79%	7%	62%	38%	70%	22%
DNR patrols trail enough to control users:	36%	0%	23%	62%	30%	37%
DNR does a good job maintaining the trail:	57%	14%	85%	15%	70%	15%
Local people use and enjoy the trail:	64%	7%	85%	8%	74%	7%
Trail is a worthwhile expenditure of money:	36%	29%	38%	28%	44%	33%
Trail has benefited the local economy:	57%	21%	23%	54%	41%	37%
Number of Respondents:	14		13		27	

Table 4.14 Current Opinions About Trails

A large majority of owners believe that summer and winter trail users cause few or no problems (81% and 81%). But some of the farmland owners (22%) report abuses by snowmobiles on or near the trail in winter. Law enforcement agents, conservation officers, and trail managers state that more problems and complaints occur in spring, summer, and fall.

Many of the landowners (43%) are unsure whether the trails are patrolled often enough by the DNR. However, 40% of all LLT owners and 62% of the LLT farmland owners want the Luce Line patrolled more often. LLT conservation officers state the trail is monitored on the average five to seven days a week for two to three hours.

Three-fourths of the owners (74%) believe the DNR does a good job maintaining the trail, especially on the Luce Line (81%). However, in a couple of cases, the lack of maintenance on adjacent property is a detraction for the trail. The Wayzata Country Club disposal area was located next to the Luce Line after the trail was established (Fig. 4.2 Country Club Disposal Area). In addition, the trail is crossed at this point in order to gain access to the dump. The view of most of the county club from the trail is in sharp contrast to this disposal area (Fig. 4.3 Golf Course).

A vast majority of owners (88%) believe that local people use and enjoy the trail. In addition, almost three-fourths of the respondents (70%) regard the trails as a worthwhile expenditure of public money. But only one-half of the RRT owners (48%) agree with the investment in the trail. One factor may be the limited time that the trail has been in use.



Figure 4.2 Country Club Disposal Area View from the Luce Line Trail of the disposal area for the Wayzata County Club.



Figure 4.3 Golf Course View from the Luce Line Trail of the well maintained golf course at the Wayzata Country Club.

All three of the county commissioners believe the trails are an asset to the community. One of these professionals suggests that an additional section to the Root River Trail along the river to Preston, should be constructed. But another commissioner feels that mass transit should have the first priority for abandoned rail lines.

Landowners are divided on whether the trails have benefited the local economy. However, a majority of RRT owners (57%) believe the Root River contributes economically to the community. This reflects the difference in the type and use of the two trails. The Root River lies in a scenic rural setting, passes through a small historic village, and is viewed by many as an attraction for tourism. On the other hand, the Luce Line passes through a wooded suburban area and the rural countryside near a metropolitan city, but has few adjacent businesses catering to the trail user. Additional owner opinions on the most and least desirable characteristics of the trails are located in Appendix F: Comments of Landowners.

Findings on Problems, Concern, & Opinions

The major findings on the problems, concerns, and opinions about the trails can be summarized with the following points.

1. A vast majority of all landowners do not experience major problems with the trails. However, loss of privacy, trespass, litter, and access to their property are of some concern for 25% to 33% of the owners.
2. A majority of farmland owners do not experience major problems with the trails. However, these owners perceive more difficulties than do residential or commercial owners. This may be due to more problems experienced in the rural areas, less tolerance for trail users, or a past negative bias towards the trails.

3. One-third of the landowners have been approached by trail users asking for help. The most frequent requests were for directions, phone, and water.
4. Before trail conversion, about one-half of the continuing owners anticipated problems with noise, vandalism, trespass, loss of privacy, stealing, litter, and poor access. Farmland owners expressed much greater concern over the proposed trail than other owners.
5. The concerns of continuing owners before trail development were much greater than the current problems experienced by these same owners. However, new residents have even fewer problems than continuing owners.
6. According to professionals, few incidents of crime or other major problems have occurred on the trails. Cases of indecent exposure and stolen bikes and gas have been reported, but most of the problem are infractions rather than crime.
7. A vast majority of owners (80%) believe the trails do not increase the rate of violent crime. Three-fourths of the owners feel secure about their safety on their property (76%).
8. A majority of owners state that summer and winter trail users cause only a few problems (89% and 81%). However 40% of the Luce Line respondents want the DNR to patrol the trail more often. Conservation officers on the average check the trail five to seven times a week for two to three hours.
9. Three-fourths of the owners (74%) think the DNR does a good job maintaining the trails.
10. A vast majority of owners (88%) believe that local people use and enjoy the trails. In addition, about three-fourths regard the trails as a worthwhile expenditure of public money (70%).
11. Three county commissioners feel the trails are an asset to the community. One commissioner suggests an additional section to the Root River. However, another thinks that mass transit should have first priority for abandoned rail lines.
12. A majority of Root River owners (57%) believe the trail benefits the local economy. This reflects the potential for the trail to increase tourism in the area.

ADJACENT PROPERTY VALUATION

Landowners were surveyed about the impact of the trails on the value of their property (Table 4.15 Trail Influence on Property Value). A vast majority of landowners (87%) believe the trails contribute to an increase or had no affect on the value of their property. Only 11% feel the trail lowered their property values. Most farmland owners (56%) think there was no affect on their land, while two-thirds of the residential respondents state the trails increased their values. New owners generally feel the trails have a more positive affect on adjacent land values than continuing owners (65% to 33%).

On the Root River, most residents (62%) think there has been no affect on land values, while most LLT owners (58%) feel the trail has contributed to an increase. This reflects the contrast in adjacent land use between the rural Root River and the suburban Luce Line. Areas with a growth potential benefit more with the amenity of a trail.

Most appraisers and real estate agents believe the trails either contribute to an increase or have no affect on the value of residential property. The trails are more of an asset for suburban residential land than for housing in small towns. One suburban agent stated that residential property near the trail generally has more showings and sells faster than property further away. However, another agent felt the trail would be a slight negative feature for homes located very close to it (Fig. 4.4 House Near Trail).

According to the professionals, the impact on farmland ranges from increased to slightly decreased value depending on the use. For agricultural farmland, the trail has no affect or a slight decrease.

TRAIL IMPACT ON PROPERTY VALUE	ALL OWNERS	RESIDENTIAL OWNERS	FARMLAND OWNERS	NEW OWNERS	CONTINUING OWNERS
Root River Trail:					
Increased the Value	14%	50%	7%	0%	18%
No Affect	62%	50%	64%	75%	59%
Lowered the Value	14%	0%	21%	25%	12%
No. of Respondents:	21	2*	14	4	17
Luce Line Trail:					
Increased the Value	58%	62%	38%	74%	42%
No Affect	32%	31%	46%	26%	38%
Lowered the Value	9%	7%	15%	0%	19%
No. of Respondents:	53	42	13	27	26
Both Trails:					
Increased the Value	46%	61%	22%	65%	33%
No Affect	41%	32%	56%	32%	47%
Lowered the Value	11%	7%	19%	3%	16%
No. of Respondents:	74	44	27	31	43

* Number of respondents too low for an accurate measurement.

Table 4.15 Trail Influence on Property Value



Figure 4.4 House Near Trail One of the few residential homes located close to the Luce Line Trail at Orono.

However, the trail is an asset for hobby horse farms, and for farmland proposed for development. In the next few years, development near the Luce Line Trail is expected to increase due to the construction of a freeway to the city (Fig. 4.5 House Under Construction).

An economic growth potential may exist for Lanesboro when the Root River Trail is completed. Three of the professionals, state that downtown commercial property has slightly increased in value because of the trail (Fig. 4.6 Downtown Lanesboro). This increase would be a result of additional tourism in town, rather than the amenity of owning property adjacent to the trail. For example, two rural landowners have opened bed and breakfasts on property near the trail, as a result of the increase in the number of visitors to the area.



Figure 4.5 House Under Construction View from the Luce Line Trail of a house under construction near Stubbs Bay. This area is in the transition zone between rural and suburban residential.



Figure 4.6 Downtown Lanesboro View of part of the downtown business district in Lanesboro one block from the Root River Trail. Mrs. B's Bed and Breakfast is the first building on the corner.

CONTINUING OWNERS PRE-DEVELOPMENT CONCERNS	ROOT RIVER TRAIL	LUCE LINE TRAIL	BOTH TRAILS
=====			
Trail will reduce value of my land:			
No Concern	65%	69%	67%
Minor Concern	12%	12%	12%
Major Concern	18%	19%	19%
No. of Respondents	17	26	43

Table 4.16 Pre-development Concerns About Property Value

Table 4.16 Pre-development Concerns About Property Value indicates that prior to trail conversion, reduced property value was a concern for one-third of continuing owners (31%). But now, only 16% feel the trails have lowered their value, and 80% state it has either increased or had no affect. The concern about lower property values before trail development is greater than the current number of owners who state lower values as a result of the trails.

Findings on Property Valuation

The findings on the value of property can be summarized with the following points.

1. A vast majority of owners (87%) believe the trails contribute to an increase or have no affect on the value of their property. Most farmland residents (56%) think the trails have no affect on their values, while two-thirds of the residential owners (61%) state an increase as a result of the trails. New owners generally feel the trails have a more positive affect on adjacent property values than do continuing owners.
2. Most RRT owners (62%) think there has been no affect on their land values, while most LLT owners (58%) state an increase.

3. According to appraisers and real estate agents, trails are a selling point for suburban residential property, hobby farms, farmland proposed for development, and some types of small town commercial property. However, trails have no affect or they are a slight negative feature for agricultural land and small town residential property.
4. The concern about lower property values before trail development is greater than the current number of owners who state lower values as a result of the trails.

ANALYSIS OF THE STUDY

The methodology developed in this study worked well for obtaining landowner attitudes about rail-trails. However, several observations are noteworthy.

This study was limited to two sites because of the restraints of time and resources. One limiting factor in surveying several trails, is identifying all the adjacent landowners. The results presented in this study, represent the attitudes along two trails and may not reflect the opinions of owners in other areas.

The selection of the Luce Line and Root River Trails was appropriate for surveying several distinctive groups. But extending the survey on the Luce Line to Winsted, could have included more of the small town and farming populations. Although a number of farmland owners were included, few studies have been completed on rural trails and more information would be valuable.

The role of the DNR was important in this study. Their assistance was critical in obtaining information such as landowner names and the documentation of past events. However, conducting an independent study allowed for more credibility with the adjacent landowners due to the opposition in the past.

The advance letter did not appear to improve the participation rate. Owners who did not receive a letter, participated at about the same rate as individuals with advance notification. This may be due to owner interest with the subject matter. However, the initial contact with the respondent was much easier due to the advance letter.

For this study, the phone survey was effective in gathering information and helped to increase the participation rate. On studies involving several trails and a number of adjacent landowners, the mail survey approach would be equally effective as long as an accurate list of names was available.

The landowner questionnaire worked well in gathering the necessary information (Appendix B: Landowner Questionnaire - Telephone Survey). However, a few minor changes could improve this testing instrument. The survey took 10 to 15 minutes to administer and could be shortened by eliminating some of the questions on the landowner use of the trail. In addition, some of the current opinion questions should be reworded as problem questions for easier comparison with the pre-development concerns.

Ten landowners who were not contacted by phone, received questionnaires through the mail. Although the response rate was only 40%, this approach allowed every owner the opportunity to participate in the study.

The interview forms for trail manger, county commissioners, conservation officers, and law enforcement agents were effective in gathering information (Appendix G: Interview Forms). However, one law enforcement agent in the metropolitan area, was unsure about precise

crime statistics. An advance letter to these professional could help in gathering more information. The appraisers and real estate agent forms, on the other hand, need to be reworked. Many of the questions are too detailed and should be phrased in an open ended style.

CHAPTER V
CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

The following conclusion about the Root River and Luce Line Trails, are based on the results of the landowner survey and the information gathered in the inquiry of professionals.

1. About three-fourths of all landowners view the Root River and Luce Line Trails as a desirable feature (73%). This rating is much higher than the opinions of continuing owners before trail development (63% to 44%) and new owners when purchasing adjacent property (87% to 71%).
2. The increase in the desirability rating on the Root River is due to a change in the attitude of farmland residents who owned property prior to trail development. The increase on the Luce Line is because of 1) a change in the attitude of continuing residents, and 2) a growing percentage of owners that are new residents who overwhelmingly rate the trail desirable.
3. A majority of all owner (85%) do not experience major problems with the trails. However, loss of privacy, trespass, litter, and property access are of some concern for 25% to 33% of the owners.
4. The concerns of continuing owners before trail development, were much greater than the current problems experienced by these same owners.
5. New owners rate the trails higher in desirability and experience fewer problems than do continuing owners. As older residents are replaced, the desirability rating may increase and the perceived problems decrease.

6. Suburban residential and small town commercial owners rate the trail higher in desirability and have fewer problems than do farmland owners. The suburban Luce Line has a higher desirability rating than the rural Root River (81% to 52%). Trails with large numbers of adjacent rural landowners may experience lower desirability ratings, at least until they are established for a few years.
7. The vast majority of owners (80%) believe the trails do not increase the rate of violent crime. Law enforcement agents, conservation officers, and trail managers report few incidents of crime or other major problems on the trails.
8. Most owners state that summer and winter trail users cause few problems. However 40% of the Luce Line respondents want the DNR to patrol the trail more often.
9. A majority of the owners (74%) think the DNR does a good job maintaining the trail. However, the Luce Line has a small problem with adjacent property detracting from the visual quality of the trail.
10. A vast majority of owners (87%) believe the trails contribute to an increase or have no affect on the value of their property. Most farmland residents (56%) think the trails have no affect on their value, while two-thirds of the suburban residential owners (61%) state an increase as a result of the trails. New owners feel the trails have a more positive affect on adjacent property values than do continuing owners.
11. According to appraisers and real estate agents, trails are a positive selling point for suburban residential property, hobby farms, farmland proposed for development, and some types of small town commercial property. Trails have no affect or a slight negative impact on agricultural farmland and small town residential property.
12. A majority of Root River respondents (57%) feel the trail benefits the local economy. This reflects the optimism in the Lanesboro community for the trail to improve economic growth by promoting tourism.
13. A majority of landowners (88%) use the trail for bicycling, hiking and jogging, and cross-country skiing. However, most do not want to add more activities such as motorized trail bikes, night-time use, or camping. Adjacent landowner would prefer to restrict hunting and snowmobiling.
14. About one-third of the landowners have been approached by trail users asking for help. The most frequent requests were for directions, phone, and water.

15. Professionals offered several suggestion or comments about the two trails:
 1. Limit the number of activities on the Luce Line Trail.
 2. Provide additional parking and location signs.
 3. Assess the problem with bicycle accidents on the Root River Trail.
 4. Involve local law enforcement agencies in the early planning stages of trails.
 5. Add a section of trail along the South Branch of the Root River to Preston.

RECOMMENDATIONS

The recommendations in this study include both site specific suggestions for the trails and general observations.

Trail Recommendations

The increased desirability rating by adjacent landowners indicates that overall trail management has been successful since conversion. However, a few suggestions are appropriate in order to improve on the trail experience for adjacent landowners and trail users.

1. The number of activities should be restricted on the Luce Line. The trail experiences heavy use and sometimes user conflicts occur with walkers, cross-country skiers, and snowmobiles in winter. Landowners do not want to add other activities and would prefer to limit snowmobiling and hunting.
2. The DNR should assess the need for off-street parking for Luce Line Trail users at Co Rd 19 or Co Rd 110. Individuals are now parking on the side of the road and causing minor damage to the shoulders.
3. On the Luce Line, 40% of all landowners and 62% of farmland owners want the DNR to patrol more often. Conservation officers regularly monitor the trail, but due to the increased number of users in recent years, additional time may be needed to patrol the sections with heavy use.
4. The most frequent trail user requests to landowners, is for directions, phone, and water. A couple of low keyed location maps that indicate available facilities on or near the trail, would be helpful for visiting trail users.

5. The Isinours Unit parking lot near the Root River Trail is generally used by only the local residents. Signs that indicate the location of the parking lot for visitors, may help to relieve some of the congestion in Lanesboro. This may be more of a problem in the future, after the trail is completed.
6. There are several blind road intersections on the Root River Trail. Road signs that indicate a trail crossing, may prevent accidents, when the trail experiences heavier use.
7. Several bicycle accidents have occurred on the steep grades in the Lost Lake State Game Refuge near Lanesboro. Design modification need to be made to prevent further problems. In the future, land exchanges with adjacent landowners should be evaluated for trail design and user safety.
8. The DNR should study the option for an additional section of trail along the Root River to Preston.

General Observations

Planners of proposed rail-trails should address the concerns of local officials and residents before the start of organized opposition. Conclusions reached in this study can be helpful in reassuring adjacent landowners that their fears are exaggerated. Problems anticipated by owners along the Root River and Luce Line in the past are similar to concerns expressed on other proposed rail-trail projects across the country. The findings of this study can be used as evidence that these fears are largely unfounded. Results that planners may find helpful include:

1. Landowners who had many concerns before trail development, now experience few problems or incidents of crime.
2. The desirability rating for the trails has increased since development. New and continuing owners as well as residential, commercial, and farmland owners, rate the trails higher in desirability.
3. After experiencing the impact of the trails for a few years, a vast majority of owners believe the trails increase or have no affect on the value of their property.

Although these findings can be useful in the conversion process, planners should be aware of how the political, social, and economic factors at proposed trails may differ from the study sites in Minnesota. Other parts of the country may have a more or less favorable environment for trail development.

Planners should sell the advantage of the proposed trails to the local officials and the general public in order to generate support. Depending on the situation, trails can offer several opportunities:

1. Increase the recreational opportunities in the area.
2. In some communities, contribute to the economic growth by promoting tourism.
3. Increase the residential property values in areas that are experiencing growth.
4. Improve the image and desirability of local communities.
5. Preserve plant and animal habitats and the historical and cultural heritage of the area.

However, in order to realize these benefits, officials and residents of the area must be included early in the planning stages. Involving local people can not only help in converting additional trails, it can also generate a better quality project.

AREA FOR FUTURE RESEARCH

Limited research has been conducted on the rail-trail impact on nearby property. Further study in this and related areas, will help to resolve the conflicts over land use between recreation enthusiasts and nearby residents, especially the rural landowners. The goal is to plan for the optimum use of land that is in harmony with it's surroundings and which meets the needs of people.

Several opportunities exist for focused and broad-based research on railroad trails.

1. In this study, the desirability rating improved over time for two trails in Minnesota. Additional research is needed on more types of trails (rural, suburban, and urban) in other states to confirm this trend.
2. Businesses in Lanesboro experience some economic benefits from the Root River Trail and anticipate more, once the trail is completed. Additional information is needed about the trail's economic impact on small communities.
3. Since the full impact has not been experienced on the Root River Trail, a follow-up study would be valuable in five to ten years in order to determine any changes in landowner attitudes.
4. This study determined the landowner attitudes about property values and problems with crime. Additional research would be valuable on the comparison of the actual crime rate and the land values of adjacent property with nearby neighborhoods in a metropolitan area. On urban trails, the crime rate may be a critical factor in the desirability rating. A model for this research could be the study on the Burke-Gilman Trail in Seattle, Washington.
5. The Luce Line Trail may allow too many different types of recreational activities. Research on the compatibility of trail activities may help to prevent user-to-user conflicts.
6. On the first 30 miles, the Luce Line Trail has approximately 70,000 user occasions each summer. Answers are needed on the carrying capacity of trails in order to limit user conflicts, prevent trail damage, and maintain a quality experience for the user.
7. The reasons for trail user accidents may be due to poor trail design, improper maintenance, infrequent monitoring, trail activity conflicts, or too many users. Research in this area would be valuable in identifying conditions that are unsafe for trail users.
8. Rail-trails experience many difficulties in the conversion process. A comparison of the problems during development of rail-trails with trails along streams and other natural corridors, would be interesting.

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APPENDIX A
ADVANCE LETTER

Department of Landscape Architecture, Box 23
Kansas State University
Manhattan, Kansas 66506
April 4, 1988

Your Name
Your Address

Dear Mr. Name:

During the week of April 11-15, I will be calling you as part of a study on recreational trails. We are collecting information on what people think about the Root River and Luce Line Trails.

I am writing you at this time because many people appreciate being advised that a research study is in progress and they will be contacted by phone. The interview should take about 10 minutes. If I call at an inconvenient time, please let me know and I will call back later. I will be happy to answer any questions you might have during the interview. Or you may contact me by phone at (913) 539-1822 or by mail.

Your participation is voluntary and you are free not to answer any of the questions. But your help along with others being asked to participate, is essential in finding out the effectiveness of the trails. Your individual answers will be kept confidential and there are no foreseeable risks to you. The results of the study will be shared with the Minnesota Department of Natural Resources. Your cooperation is greatly appreciated. I look forward to talking with you.

Cordially,

Lenny Mazour
Project Director

APPENDIX B

LANDOWNER QUESTIONNAIRE
TELEPHONE SURVEY

LANDOWNER QUESTIONNAIRE

1. Root River / Luce Line Trail ID # _____
2. Address and/or county, township, range, section:

3. Telephone: _____

4. Hello, is this the _____ residence? May I speak with Mr. or Mrs. _____? This is Lenny Mazour from Kansas State University and I am working in cooperation with the Minnesota Department of Natural Resources. I am collecting information on what people think about recreational trails. The results of this study will influence the future of proposed trails in Minnesota and other parts of the country. Your individual answers will be kept confidential. Could I take about 10 minutes of your time to ask you some questions?

____ Yes
____ No. Thank you.
____ Call back later at _____

If no advance letter: Since your participation is voluntary, feel free not to answer any of the questions.

I would like to start by asking you about the Root River / Luce Line Trail and your property.

5. Do you live or work next to the trail?

____ Yes
____ No

6. Do you own or rent property next to the trail?

____ Own (5 yes - go to 7)
____ Rent
____ No

If Own & 5 No: Do you rent out your property? ____ Yes ____ No

If yes: I would also like to interview the renter. Can you give me his name and address? (go to 7)

If rent: I would also like to interview the owner. Can you give me his name and address? (go to 7)

If no: Did you at any time own property next to the trail?

____ Yes ____ No

If no: **STOP** Thank you for your time.

If yes: I would like to interview the present owner. Can you give me his name and address? **STOP** Thank you.

7. How much land do you own / rent that is next to the trail?

____ Acres _____ Size

8. How does the trail run through your property? Does it:

- ____ a. form an outside boundary of your property
- ____ b. run parallel to your boundary line inside your property
- ____ c. run diagonally through your land
- ____ d. other _____

9. I would like to know how the property next to your land is used. Answer yes to each of the following types that border your property.

- | | |
|--------------------------|---------------------|
| ____ a. Residential | ____ e. Pasture |
| ____ b. Commercial | ____ f. Woods |
| ____ c. Public use _____ | ____ g. Marsh |
| ____ d. Cropland | ____ h. Other _____ |

10. I would like to know how you use your property next to the trail? Answer yes, to each of the following types, that is a current use of your land next to the trail.

- | | |
|--------------------------|---------------------|
| ____ a. Residential | ____ e. Pasture |
| ____ b. Commercial | ____ f. Woods |
| ____ c. Public use _____ | ____ g. Marsh |
| ____ d. Cropland | ____ h. Other _____ |

11. Did you own / rent this property before the trail was developed?

- ____ Yes (go to 13)
____ No (go to 12)
-

12. When you decided to buy / rent the property, what did you think of the trail? Was it a:

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature
☐ (go to 15)

13. Before the railroad right-of-way was sold to the state, what was your position on the trail?

☐ in favor
☐ against
☐ unsure or indifferent

14. The right-of-way for the Root River / Luce Line Trail was acquired by the state about 10 / 15 years ago. I would like to find out your concerns about the trail before this land was purchased by the state. As I read each statement, I would like you to recall if it was: 1) a major concern, 2) a minor concern, or 3) no concern for yourself or your property. Remember, I want your concerns you had about the trail 10 / 15 years ago.

maj	min	no	The trail will cause access problems on my land.
maj	min	no	The trail will interrupt the drainage on my land
maj	min	no	The trail will reduced the productive use of my land.
maj	min	no	The trail will prevent my purchase of the right-of-way.
maj	min	no	The trail will cause weed problems on my property.
maj	min	no	The trail will make me feel less secure about my safety.
maj	min	no	The trail will reduce the value of my property.
maj	min	no	Trail users will interrupt my privacy.
maj	min	no	Noise from trail users could become a problem.
maj	min	no	Trail users may steal from my property.
maj	min	no	Trail users will harass my farm animals.
maj	min	no	Vandalism on my property will increase because of the trail.
maj	min	no	Damage to my property from fire could be a problem
maj	min	no	Trail users will litter on the trail & my property
maj	min	no	Trespassing on my property will increase because of the trail.
maj	min	no	Major crime by trail users could be a problem.
maj	min	no	I may be liable for trail users in case of an accident.
maj	min	no	The trail will not be maintained very well by the state.
maj	min	no	Other concerns _____

15. I would like to find out any current problems you may be experiencing with the trail at this time. As I read each statement, indicated if it is: 1) a major problem, 2) a minor problem, or 3) no problem.

maj	min	no	Trail users ask me for help.
maj	min	no	Trail users trespass on my property.
maj	min	no	Trail users litter.
maj	min	no	Trail users steal from my property.
maj	min	no	Trail users are too noisy.
maj	min	no	Trail users harass my farm animals.
maj	min	no	Trail users cause vandalism on my property.
maj	min	no	The trail causes access problems to my property.
maj	min	no	The trail reduces the productive use of my land.
maj	min	no	The trail causes drainage problems on my land.
maj	min	no	The trail causes weed problems on my property.
maj	min	no	The trail reduces my privacy on my land.
maj	min	no	Other problems

16. I would like to find out your current opinions of the trail. As I read each statement, indicate if you agree or disagree with that statement. Your choices are: 1) agree, 2) disagree, or 3) are unsure or indifferent.

A	D	I	Local people use and enjoy the trail.
A	D	I	Having the trail has benefited the local economy.
A	D	I	The trail is a worthwhile expenditure of public money.
A	D	I	Summer trail users cause few problems.
A	D	I	Winter trail users cause few problems.
A	D	I	The Department of Natural Resources patrols the trail often enough to control the users.
A	D	I	The Department of Natural Resources does a good job maintaining the trail.
A	D	I	The trail has increased the rate of violent crime.
A	D	I	I feel less secure about my safety on my property due to the trail.

17. How do you feel the trail has affected the value of your property?

 greatly increased the value
 increased the value
 no affect
 lowered the value
 greatly lowered the value

18. Do you have any particular experience or evidence that makes you feel this way?

19. Is there a house, commercial building, or public use structure on your property?

☐ house
☐ commercial building
☐ public use
☐ no (go to 21)

20. How far is (your house / this structure) from the nearest part of the trail?

_____ miles _____ rods _____ ft/yds

21. How long have you owned / rented this property?

_____ Years

22. At the present time, what do you think of the trail? Is it a

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature

If undesirable: Is there anything that can be done to make the trail more acceptable.

23. If you were the manager, which activities would you encourage on the trail? As I read each activity, answer: 1) Yes; 2) No; or 3) it Doesn't Matter.

Y N DM	a. Picnicking	Y N DM	f. Snowmobiling
Y N DM	b. Camping	Y N DM	g. Hunting
Y N DM	c. Night time use	Y N DM	h. Horseback riding
Y N DM	d. Motorized trail biking	Y N DM	i. Cross-country
Y N DM	e. Bicycling		skiing
Y N DM	f. Walking or jogging	Y N DM	j. Other _____

24. Has a trail user ever come to you for help?

☐ Yes
☐ No

If yes: Which of the following have they asked for:

☐ a. Use telephone
☐ b. Use the bathroom
☐ c. Get drink of water
☐ d. Get directions
☐ e. Buy or borrow gas
☐ f. Borrow tools
☐ g. Other _____

25. Have you or your (family / employees) used the trail this past year?

 Yes
 No

If yes: As I read each activity, indicate your use of the trail by answering: 1) Often, 2) Sometimes, or 3) Never.

- O S N a. Snowmobiling
O S N b. Cross-country skiing
O S N c. Horseback riding
O S N d. Bicycling
O S N e. Camping
O S N f. Walking or hiking
O S N g. Commuting
O S N h. Picnicking
O S N i. Other _____

26. What do you like most about the trail?

27. What do you like least about the trail?

28. Sex of the respondent?

 Male
 Female

29. May I ask how old you are?

 age

OPTIONAL: To determine location of additional owners along the trail.

30. I would also like to interview _____

- a. who owns property at _____
b. who owns property _____ of your land.

Can you give me his address and phone number?

APPENDIX C
COVER LETTER
&
LANDOWNER QUESTIONNAIRE - MAIL SURVEY

Department of Landscape Architecture, Box 23
Seaton Hall
Kansas State University
Manhattan, Kansas 66506
April 23, 1988

Your Name
Your Address

Dear Mr. and Mrs. Name:

During the week of April 11-15, I was contacting landowners who own property next to the Root River or Luce Line Trails as part of a research study. Since I was unable to reach you by phone, I am writing to ask you for your opinions about this trail by filling out the enclosed questionnaire.

Your participation is voluntary and you are free not to answer any of the questions. But your help along with others being asked to participate, is essential in finding out the effectiveness of the Luce Line Trail. Your individual answers will be kept confidential and there are no foreseeable risks to you. The results of the study will be shared with the Minnesota Department of Natural Resources.

Please mail the questionnaire in the envelope provided by Friday, May 6. If you have any questions, feel free to contact me by phone at (913) 539-1822 or by mail. Your cooperation is greatly appreciated. I look forward to receiving your comments.

Cordially,

Lenny Mazour
Project Director

LANDOWNER QUESTIONNAIRE

Indicate your response by place an "X" in the space provided

1. Do you live or work next to the (Root River/Luce Line) Trail

No

2. Do you own or rent property next to this trail?

Rent

No If no: STOP Thank you for your time.

3. How much land do you own (or rent) that is next to the trail?

Acres	OR	Size
-------	----	------

4. How does the trail run through your property? Does it:

 b. run parallel to your boundary line inside your property

d. other

5. Indicate with an "X" in the space provided, how the property next to your land is used. You may have more than one answer.

e. Pasture

f. Woods

g. Marsh

h. Other

6. Indicate with an "X" in the space provided, your current use of your property next to the trail. You may have more than one answer.

e. Pasture

f. Woods

g. Marsh

h. Other

7. Did you own (or rent) this property before the trail was developed?

No If no: Go to question 8

8. When you decided to buy (or rent) your property, what did you think of the trail? Was it a:

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature
☐ Go to question 11

9. Before the railroad right-of-way was sold to the state, what was your position on the trail?

☐ in favor
☐ against
☐ unsure or indifferent

10. The right-of-way for the (Root River/Luce Line) Trail was acquired by the state about (10/15) years ago. I would like to find out your concerns about the trail before this land was purchased by the state. For each statement, indicate (by circling your response) if it was: 1) a major concern (maj); 2) a minor concern (min); or 3) no concern (no) for yourself or your property. Remember, I want your concerns you had about the trail (10/15) years ago.

maj	min	no	The trail will cause access problems on my land.
maj	min	no	The trail will interrupt the drainage on my land.
maj	min	no	The trail will reduced the productive use of my land.
maj	min	no	The trail will prevent my purchase of the ROW.
maj	min	no	The trail will cause weed problems on my property.
maj	min	no	The trail will make me feel less secure about my safety.
maj	min	no	The trail will reduce the value of my property.
maj	min	no	Trail users will interrupt my privacy.
maj	min	no	Noise from trail users could become a problem.
maj	min	no	Trail users may steal from my property.
maj	min	no	Trail users will harass my farm animals.
maj	min	no	Vandalism on my property will increase because of the trail.
maj	min	no	Damage to my property from fire could be a problem
maj	min	no	Trail users will litter on the trail & my property
maj	min	no	Trespassing on my property will increase because of the trail.
maj	min	no	Major crime by trail users could be a problem.
maj	min	no	I may be liable for trail users in case of an accident.
maj	min	no	The trail will not be maintained very well by the state.
maj	min	no	Other concerns

11. I would like to find out any current problems you may be experiencing with the trail at this time. For each statement, indicated (by circling your response) if it is: 1) a major problem (maj); 2) a minor problem (min); or 3) no problem (no).

maj	min	no	Trail users ask me for help.
maj	min	no	Trail users trespass on my property.
maj	min	no	Trail users litter.
maj	min	no	Trail users steal from my property.
maj	min	no	Trail users are too noisy.
maj	min	no	Trail users harass my farm animals.
maj	min	no	Trail users cause vandalism on my property.
maj	min	no	The trail causes access problems to my property.
maj	min	no	The trail reduces the productive use of my land.
maj	min	no	The trail causes drainage problems on my land.
maj	min	no	The trail causes weed problems on my property.
maj	min	no	The trail reduces my privacy on my land.
maj	min	no	Other problems _____

12. I would like to find out your current opinions of the trail. For each statement, indicate (by circling your response) if you agree or disagree with that statement. Your choices are: 1) agree (A); 2) disagree (D); or 3) are unsure or indifferent (I).

A	D	I	Local people use and enjoy the trail.
A	D	I	Having the trail has benefited the local economy.
A	D	I	The trail is a worthwhile expenditure of public money.
A	D	I	Summer trail users cause few problems.
A	D	I	Winter trail users cause few problems.
A	D	I	The Department of Natural Resources patrols the trail often enough to control the users.
A	D	I	The Department of Natural Resources does a good job maintaining the trail.
A	D	I	The trail has increased the rate of violent crime.
A	D	I	I feel less secure about my safety on my property due to the trail.

13. How do you feel the trail has affected the value of your property?

☐ greatly increased the value
☐ increased the value
☐ no affect
☐ lowered the value
☐ greatly lowered the value

14. Do you have any particular experience or evidence that makes you feel this way?
- _____
- _____

15. Is there a house, commercial building, or public use structure on your property?

☐ house
☐ commercial building
☐ public use
☐ no If no: Go to question 17

16. How far is this structure from the nearest part of the trail?

_____ miles OR _____ rods OR _____ yds OR _____ ft

17. How long have you owned (or rented) this property?

_____ Years

18. At the present time, what do you think of the trail? Is it a

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature

If undesirable: Is there anything that can be done to make the trail more acceptable.

19. If you were the manager, which activities would you encourage or allow on the trail? For each activity, circle your response. Your choices are: 1) Yes; 2) No; or 3) it Doesn't Matter (DM).

Yes	No	DM	Picnicking
Yes	No	DM	Snowmobiling
Yes	No	DM	Camping
Yes	No	DM	Hunting
Yes	No	DM	Night time use
Yes	No	DM	Horseback riding
Yes	No	DM	Motorized trail biking
Yes	No	DM	Cross-country skiing
Yes	No	DM	Bicycling
Yes	No	DM	Walking or jogging
Yes	No	DM	Other _____

20. Has a trail user ever come to you for help?

 Yes
 No

If yes: Which of the following have they asked for:

- a. Use telephone
- b. Use the bathroom
- c. Get drink of water
- d. Get directions
- e. Buy or borrow gas
- f. Borrow tools
- g. Other _____

21. Have you or your family (employees) used the trail this past year?

 Yes
 No

If yes: For each activity, indicate your use of the trail by circling your response. Your choices are: 1) often (O); 2) sometimes (S); or 3) never (N).

O	S	N	Snowmobiling
O	S	N	Cross-country skiing
O	S	N	Horseback riding
O	S	N	Bicycling
O	S	N	Camping
O	S	N	Walking or hiking
O	S	N	Commuting
O	S	N	Picnicking
O	S	N	Other _____

22. What do you like most about the trail?

23. What do you like least about the trail?

24. Sex of the respondent?

 Male
 Female

25. Age of the respondent?

 age

APPENDIX D

HUMAN SUBJECTS COMMITTEE APPROVAL



Department of Architecture

College of Architecture and Design
Seaton Hall
Manhattan, Kansas 66506
913-532-5953

MEMORANDUM

TO: Lenny Mazour
FROM: Lyn Norris-Baker *LN*
SUBJECT: Review of Proposed Research
DATE: 29 March 1988

The members of the College of Architecture and Design Subcommittee of the Committee on Research Involving Human Subjects have reviewed the revised materials you have submitted. They have approved the conduct of your research according to the procedures that you have described. Approval is effective immediately.

Any changes in procedures from those described in the application and the proposal must be approved through the College Subcommittee. Please remember that you are responsible for keeping the Subcommittee informed of your progress, any problems that arise involving any of the subjects, and the final completion of the project.



Department of Architecture

College of Architecture and Design
Seaton Hall
Manhattan, Kansas 66506
913-532-5953

MEMORANDUM

TO: Lenny Mazour
FROM: Lyn Norris-Baker *LN*
SUBJECT: Review of Proposed Research
DATE: 6 May 1988

The members of the College of Architecture and Design Subcommittee of the Committee on Research Involving Human Subjects have reviewed the revisions you have proposed. They have approved the conduct of your research according to the procedures that you have described. Approval is effective immediately.

Any changes in procedures from those described in the application and the proposal must be approved through the College Subcommittee. Please remember that you are responsible for keeping the Subcommittee informed of your progress, any problems that arise involving any of the subjects, and the final completion of the project.

APPENDIX E
OWNER IDENTIFICATION PROCESS



STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55155-4052

ONR INFORMATION
(612) 296-6157

March 30, 1988

Charlie Regnier, Research Analyst
MN DNR - Trails and Waterways
500 Lafayette Rd. Box 52
St. Paul, MN 55155-4052

Lenny Mazour, Project Director
715 Canfield Drive
Manhattan, Kansas 66502

Dear Lenny:

I am enclosing the lists of landowners with properties adjoining the Root River and Luce Line Trails which you requested in your communications with Dan Collins. Also enclosed are photo copies of the lists which were used in the 1979 adjoining landowners survey conducted on the Douglas and Heartland Trails. I will include a few words of description/instruction for the use of each list and turn them over to you.

The Root River Trail list was compiled from the Fillmore County Atlas and Plat Book, 1983-85. I checked the current names against the list that was compiled for the 1979 survey. Where they matched and there was a telephone number on the old list, I included it on the new list. I enlisted the assistance of Craig Blommer from our Rochester Office to identify the adjacent landowners within the city of Lanesboro. A copy is enclosed of the list sent to him by Deborah Erickson of Lanesboro.

The list for the Luce Line Trail starts at Watertown in Carver County. The first 15 names are from the 1984 Carver County Atlas and Plat Book.

The identification of property owners in Hennepin County required me to spend a day at the Hennepin County Government Center in Minneapolis. There I used half section maps to record section, township, range, quarter-quarter, property identification numbers, and on which side of the trail the property was located for each of the 266 individual adjoining pieces of property identified. The next step was to input each series of numbers at a computer terminal and record the owner/taxpayer name and address.

When my list was complete, I went over it again to put all

AN EQUAL OPPORTUNITY EMPLOYER

page 2

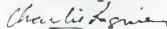
pieces of property owned by a single entity under one number. The new count which consolidates ownership and omits the parcels owned by the state reduces the list to 203 separate owners in Hennepin County, 125 of which lie on the north side, 78 of which lie on the south side, and 14 of which are intersected by the trail.

Other things I have identified on the Hennepin County landowners list are: the name of the taxpayer, if different from the owner; and the address of the property, if different from that of the owner/taxpayer.

I recorded the property identification numbers from the westernmost point in Hennepin County to Vicksburg Lane in Plymouth, making one list which includes the parcels intersected by the trail and those which lie to the north or south of the trail. Separate lists for north side and south side owners can be constructed by going through my list from beginning to end and recording the north side owners on one list and the south side owners on another in the same order with which they occur in my list.

If you have questions feel free to call me at the number below. Good luck with your sampling. I look forward to meeting you and to seeing the results of your survey.

Sincerely,
Charlie Regnier



(612) 236-7043

APPENDIX F
COMMENTS OF LANDOWNERS

NO. OF
OWNERS

OTHER CURRENT PROBLEMS WITH THE TRAILS

```
=====
```

5	Unauthorized motor vehicles/snowmobiles on the trails.
4	Concern for safety on the trail with exposing incidents or other problems.
4	Horses using the main trail.
4	Meeting dogs on the trail.
4	Dogs from the trail trespassing on my property.
3	Poor maintenance of cutting trees in ROW.
2	Fee for cross-country skiing on the trail.
2	People parking/driving on my property.
1	Cutting down too much brush.
1	Snowmobiles are threat when cross-country skiing.
1	Feel less secure about safety in house.
1	Trail users leave gates open for animals.
1	Fix fence.
1	Property used for bathroom facilities.
1	Lack of enforcement of regulations.
1	Bicycles need bells to warn walkers.
1	Trail users harass my pets.
1	Railroad ties piled near my property.

NO. OF
OWNERS

MOST DESIRABLE CHARACTERISTICS OF THE TRAILS

-
- | | |
|----|--|
| 31 | Close, flat place for people to walk, bike, or ski. |
| 17 | Close, scenic natural area in the country with wildlife. |
| 8 | Nothing, not much. |
| 4 | Trail well maintained. |
| 3 | Enjoy using and watching people on the trail. |
| 2 | Good addition to community or area. |
| 2 | Brings business to area. |
| 1 | Increases the value of my property. |
| 1 | Relaxing on the trail. |
| 1 | Meeting and talking to people on the trail. |

NO. OF
OWNERS

LEAST DESIRABLE CHARACTERISTICS OF THE TRAILS

-
- | | |
|----|--|
| 18 | Nothing. |
| 9 | Motor vehicles/snowmobiles on the trail. |
| 6 | Lack of privacy. |
| 6 | Easy access to my property for too many people. |
| 4 | Safety for yourself on the trail. |
| 3 | Motorized vehicles/snowmobiles trespassing and noise. |
| 3 | Trail getting too crowded and noisy. |
| 2 | Weed problems. |
| 2 | Wanted to purchase the ROW. |
| 2 | Trespassing on my property. |
| 2 | Litter on the trail and parking lot. |
| 2 | Misuse or abuse of the trail. |
| 2 | Mosquitoes. |
| 1 | Dogs and owners harass my cattle. |
| 1 | Lack of signs showing information of the area. |
| 1 | Spent too much money. |
| 1 | Don't like the increase of tourism in town. |
| 1 | Poor maintenance of the trail. |
| 1 | Fee for cross-country skiing. |
| 1 | No paved trail surface. |
| 1 | Trail too flat and boring. |
| 1 | Allows rough use of the trail, should protect for pastoral activities. |
| 1 | Not adequately patrolled. |
| 1 | Some on-grade road intersections are not safe for trail users. |

APPENDIX G
INTERVIEW FORMS

TRAIL MANAGER INTERVIEW FORM

1. Root River / Luce Line Trail
 2. Trail Manager Name: _____
 3. Address of Manager: _____
 4. Phone: _____
-

TRAIL CONVERSION

My first set of questions are about the trail when it was converted from a railroad right-of-way.

5. Where you working with this trail at that time?

6. How long have you been the manager?

7. Before the trail was established, did nearby landowners raise any organized opposition to the project?

8. What were the landowners specific reasons for the opposition?

9. Where there any local residents who where supportive of the trail?

10. a. Looking at the Root River from Fountain to Lanesboro, where there certain parts of the trail where landowners were more supportive or more opposed to the trail? Why?
- b. Looking at the Luce Line from Plymouth to Watertown, where there certain parts of the trail where landowners were more supportive or more opposed to the trail? Why?
-
-
-
-

CURRENT CONDITIONS

The next set of questions are about current conditions and activities on or near the trail?

11. What types of land use are adjacent to the trail?
-
-
12. Do different types of land use affect the management of the trail?
-
-
13. How many people use the trail during the year? What percent are summer users? What percent are winter users?
-
-
14. Do local people use the trail?
-
-
15. Do local organization use the trail?
-
-

16. Which activities are the most popular on the trail?

17. What do you think are the most attractive features of the trail?

18. What do you think are the least desirable features of the trail?

19. At the present time, how do local people view the trail?

LANDOWNER COMPLAINTS

The following questions concern landowner complaints.

20. Do you receive any complaints from adjacent landowners about the activities of trail users? Activities such as trespassing, vandalism, theft, noise, or littering?

21. Do landowners object to any particular type of recreational activity on the trail?

22. Is there any difference in the type and frequency of problems caused by summer and winter trail users?

23. How often do trail users ask adjacent landowners for help? If it is a problem: What could be done to change the situation?

24. Do you receive any complaints from adjacent landowners about maintenance of the trail? (weed problems)

CRIME

The next set of questions are about rule enforcement and crime.

25. Who are the conservation officers that patrol the (Root River Trail / Luce Line Trail from Plymouth to Watertown)?

26. How often do the conservation officers (DNR) patrol the trail?

27. Do the local police patrol the trail?

28. Are there any types of crime which have caused problems on the trail? (violent crime, trespassing, vandalism, theft, littering)

29. Which law enforcement agencies have jurisdiction in case of a crime?
-
-

PROPERTY VALUATION

The last set of question are about property values and possible benefits to local businesses.

30. Has the trail helped the local economy? How?
-
-

31. Have certain types of businesses located next to the trail in order to take advantage of some of its benefits?
-
-

32. What affect does the trail have on real estate values for residential property?
-
-

33. What affect does the trail have on real estate values for commercial property?
-
-

34. What affect does the trail have on real estate values for agricultural lands?
-
-

35. Do you have any final comments about the trail?
-
-

CONSERVATION OFFICER INTERVIEW FORM

1. Root River / Luce Line Trail
 2. Name of Conservation Officer: _____
 3. Address: _____
 4. Telephone: _____
-

5. Hello, may I speak with _____ ?

Hello, this is Lenny Mazour from Kansas State University and I am working with Dan Collins in Trails and Waterways in St. Paul. I am collecting information about crime on and near the Root River / Luce Line Trail. _____ gave me your name and suggested I talk with you.

I understand you (are / were) (one of) the conservation officer(s) on the Root River / Luce Line Trail.

- a. What section of the trail do (did) you patrol?
 - b. Do you patrol the entire trail from Lanesboro to Fountain?
- _____

6. How often do (did) you go over the trail?
- _____

7. Are there any types of crime or infractions which have caused problems on the trail and adjacent property? (theft, vandalism, fire damage, litter, trespass, violent crime)
- _____
- _____
- _____

8. For what violations do (did) you issue the most warnings and fines on the trail?
- _____
- _____

9. If a crime has been committed on or near the trail, which law enforcement agency has jurisdiction?

10. Do you received any complaints from adjacent landowners about the activities of trail users? (trespassing, vandalism, theft, fires, crop damage, litter, noisy trail users)

11. Do you have more problems with violations or landowner complaints during the winter or the summer?

12. Do certain locations along the trail cause more problems than other parts? Why?

13. Do you have any final comment about the trail?

LAW ENFORCEMENT INTERVIEW FORM

1. Root River / Luce Line Trail
2. Name of Agency: _____
3. Address: _____
4. Telephone: _____

-
5. Hello, may I speak with the (county sheriff / public relations officer / police chief / administrator familiar with crime statistics on the Root River / Luce Line Trail)? _____

Hello, this is Lenny Mazour from Kansas State University and I am working in cooperation with the Minnesota Department of Natural Resources. I am collecting information about crime on and near the Root River / Luce Line Trail. Can I take about 10 minutes of your time to ask you some questions?

- ____ Yes
____ No
____ Call back later at _____

SHERIFFS AND POLICE CHIEFS

6. First, I would like to know the number of people on your staff and how long you have served as head?

7. How large an area is your jurisdiction and how many people does it serve?

8. Are there any types of crime or infractions which have caused problems on the trail or adjacent property? (theft, vandalism, fire damage, litter, trespass, violent crime)

9. Have you received any complaints from landowners who live along the trail? (trespassing, vandalism, theft, fires, crop damage, litter, noisy trail users) How big is the problem?

10. Do you have more problems with complaints during the winter or the summer?

11. Do certain location along the trail cause more problems than other parts? Why?

12. How would you characterize the trail user?

13. Has the trail increased the workload of your department? Did you have to increase the size of your staff?

14. Has there been an increase of traffic or congestion near the trail and has it been a problem?

15. Do you have any final comments about (your experiences with) the trail?

COUNTY COMMISSION INTERVIEW FORM

1. Root River / Luce Line Trail
2. County: _____
3. Name of County Commissioner: _____
4. Address: _____
5. Telephone: _____

-
6. Hello, may I speak with _____?
This is Lenny Mazour from Kansas State University and I am working in cooperation with the Minnesota Department of Natural Resources. I am collecting information on the desirability of living next to the Root River / Luce Line Trail. Can I take about 10 minutes of your time to ask you some questions?

____ Yes (go to 7)
____ No (go to 16)
____ Call back later at _____

7. First, how has the trail affected the quality of life for people living near the trail?

8. Would you encourage the construction of more trails in this county?

9. What affect does crime, such as trespassing, litter, and theft have on property adjacent to the trail?

10. What affect does the trail have on the value of property near the trail?

11. Does the trail benefit the local economy?

12. Comparing this trail to other recreational facilities, how do you value it as a capital asset?

13. What do you think of the management and maintenance of the trail?

14. Have you received any complaints about the trail?

15. Do you have any additional comments about the trail?

OPTIONAL: To identify additional commissioners.

16. Are there any other commissioners who have (additional) knowledge about the trail?

APPRAISER INTERVIEW FORM

1. Root River / Luce Line Trail
 2. Name of Agency: _____
 3. Address: _____
 4. Telephone: _____
-

5. Hello, may I speak with an appraiser familiar with property values near the Root River / Luce Line Trail in _____ (city/county)?

This is Lenny Mazour from Kansas State University and I am working in cooperation with the Minnesota Department of Natural Resources. I am collecting information on the affect of real estate values on property adjacent to the Root River / Luce Line Trail. Can I take about 10 minutes of your time to ask you some questions?

- ____ Yes (go to 6)
____ No (go to 19)
____ Call back later at _____
-

6. First, what is your name? _____
7. Is it your job to appraise real estate within _____ (city/county) near the Root River / Luce Line Trail?

- ____ Yes (go to 8)
____ No

If No: I would like to interview that appraiser. Can you give me his name and phone number. Thank you for your time.

8. I would like to know how long you have worked as an appraiser at this location?
- _____

9. What affect does the trail have on the value of residential property next to the trail?

- ____ increased the value (go to 10)
____ decreased the value (go to 10)
____ no affect (go to 13)
-

10. Based on similar property, what percent higher / lower is the value of residential property next to the trail as compared to property not affected by the trail?

adjacent property is _____ % higher than other property
adjacent property is _____ % lower than other property

11. Based on similar property, is there any difference in value between residential property adjacent to the trail as compared with residential property in the vicinity of the trail?

_____ adjacent property is _____ % higher than property near trail
_____ adjacent property is _____ % lower than property near trail
_____ no difference

12. How far away from the trail does the trail influence residential property values?

-
13. What affect does the trail have on the value of commercial property next to the trail?

_____ increased the value (go to 14)
_____ decreased the value (go to 14)
_____ no affect (go to 15)

14. Based on similar property, what percent higher / lower is the value of commercial property next to the trail as compared to property not affected by the trail?

adjacent property is _____ % higher than other property
adjacent property is _____ % lower than other property

15. Have certain types of businesses located next to the trail in order to take advantage of some of its benefits?

-
16. Do you know what affect the trail has on the value of farmland next to the trail?

_____ increased the value (go to 17)
_____ decreased the value (go to 17)
_____ no affect (go to 18)
_____ don't know (go to 18)

17. Based on similar property, what percent higher / lower is the value of farmland next to the trail as compared to property not affected by the trail?

adjacent property is _____ % higher than other property

adjacent property is _____ % lower than other property

18. Do you have any additional comments about the trail in regard to land prices?
-
-
-

OPTIONAL: To identify additional appraisers.

19. I would like to interview the appraiser for _____.
Can you give me his name and phone number.
-

REAL ESTATE AGENT INTERVIEW FORM

1. Root River / Luce Line Trail
 2. Name of Agency: _____
 3. Address: _____
 4. Telephone: _____
-

5. Hello, this is Lenny Mazour from Kansas State University and I am working in cooperation with the Minnesota Department of Natural Resources. I am collecting information on the desirability of living next to the Root River / Luce Line Trail.

- a. May I speak with a representative or principal of your agency who has information or experience with property near the Root River / Luce Line Trail?

____ Yes
____ No
____ Call back later at _____

- b. Can I take about 10 minutes of your time to ask you some questions about property values near the trail?

____ Yes
____ No
____ Call back later at _____

6. Name of agent _____

- 6a. What are your credentials? (licensed broker)
- _____

7. How long have you been an agent at this location?
- _____

8. Does your agency broker the sale of property next to or close by the trail?

____ Yes (go to 9)
____ No (go to 10)

9. What types of property near the trail does your agency handle?

☐ Residential
☐ Commercial
☐ Farmland
☐ Other _____

10. I would like to know what effect the trail has on the value of different types of property? Of the following land uses, indicate which types you have some knowledge or past experience in relationship to the Root River / Luce Line Trail.

☐ Residential (go to 11)
☐ Commercial (go to 20)
☐ Farmland (go to 28)
☐ Other land uses _____
☐ None (STOP) (go to 36)

The following questions concern residential property.

11. If you were selling residential property close to the trail, how would your agency view the trail?

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature

12. Do you have a market strategy based on this view?

-
13. What affect does the trail have on the value of residential property next to the trail?

☐ increased the value (go to 14)
☐ decreased the value (go to 14)
☐ no affect (go to 17)

14. Based on similar property, what percent higher / lower is the value of residential property next to the trail as compared to property not affected by the trail?

adjacent property is _____ % higher than other property
adjacent property is _____ % lower than other property

15. Based on similar property, is there any difference in value between residential property adjacent to the trail as compared with residential property in the vicinity of the trail?

☐ adjacent property is ☐ % higher than property near trail
☐ adjacent property is ☐ % lower than property near trail
☐ no difference

16. How far away from the trail does the trail influence property values?

17. Has your agency experienced any prospective buyers who were pleased or disappointed with the proximity of the trail?

18. Are there any positive or negative features of the trail which have influenced residential property valuations?

19. How has the trail affected the quality of the residential neighborhood? (go to 20 commercial; 28 farmland; or 35)

(refer to question 10) The following questions concern commercial property.

20. If you were selling commercial property near the trail, how would your agency view the trail?

☐ highly desirable feature
☐ desirable feature
☐ no factor
☐ undesirable feature
☐ highly undesirable feature

21. Do you have a market strategy based on this view?

22. What affect does the trail have on the value of commercial property next to the trail?

_____ increased the value (go to 23)

_____ decreased the value (go to 23)

_____ no affect (go to 24)

23. Based on similar property, what percent higher / lower is the value of commercial property next to the trail as compared to property not affected by the trail?

adjacent property _____ % higher than other property

adjacent property _____ % lower than other property

24. Has the trail benefited the local economy?

25. Have certain types of businesses located next to the trail in order to take advantage of some of its benefits?

26. What are the benefits to commerce? (transportation link, aesthetic image, recreational use for staff)

27. Are there any negative features of the trail which have influenced commercial property valuations. (go to 28 farmland; or 35)

(refer to question 10) The following questions concern farmland.

28. If you were selling farmland near the trail, how would your agency view the trail?

☐ highly desirable feature
☐ desirable feature
☐ no affect
☐ undesirable feature
☐ highly undesirable feature

29. Do you have a market strategy based on this view?

30. What affect does the trail have on the value of farmland next to the trail?

☐ increased the value (go to 31)
☐ decreased the value (go to 31)
☐ no affect (go to 32)

31. Based on similar property, what percent higher / lower is the value of farmland next to the trail as compared to property not affected by the trail?

adjacent property is _____ % higher than other property
adjacent property is _____ % lower than other property

32. How has the trail affected the use of adjacent farmland?

33. Have you experienced any prospective buyers of farmland who were pleased or disappointed with the proximity of the trail?

34. Are there any positive or negative features of the trail which have influenced farmland valuations?

35. Do you have any additional comments about the trail in regard to land prices?

OPTIONAL: To identify additional real estate agents.

36. Can you suggest any other real estate agents who are familiar with property values near the trail?

APPENDIX H
NEWSPAPER ARTICLES

Completed section converts trail foes

By Dennis Brackels
Staff Writer

The Luce Line Corridor runs right past the backyard of Thomas Perkins' Wayzata home. When plans for the 18-mile trail were announced in late 1976, Perkins admitted he was concerned.

Now, after almost six years of watching hikers, bikers, joggers and horseback riders stream past, he says the original fears for the trail were unfounded. Lively neighbors, late-night parties and litterbugs have been rare.

"It was probably more pessimistic than most," Perkins said. "I wasn't opposed to the trail itself. I was opposed as far as wondering how they would control it and police it. But it's been super. In fact, I can't think of one bad thing today."

Perkins' feelings are shared by many along the 18-mile finished stretch of the Luce Line trail from western Plymouth to Winnetka.

"I thought there would be a awful lot of debris, but it's been well taken care of," said Richard Schmitt of Winnetka, who, like Perkins, was originally opposed to the trail. "The people I think who live along the trail are quite pleased. It has added immensely prior to this."

time, but it's changed my mind completely."

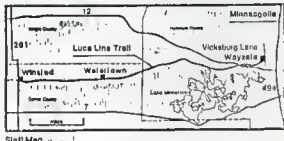
Storner, however, would advise the Department of Natural Resources to think twice before extending the trail further. And opposition by drivers went on through 1979. At the same levered pitch it was when the DNR first disclosed its plans.

"Nothing's changed," said Jim Blair Sr., who operates a farm just west of Winnetka. "We're still strongly against it."

DNR and farmers such as Frank Dostal, whose 120-acre farm is cut almost diagonally by the trail, believe the farm are being hurt financially by the state holding onto the Luce Line property. Dostal figures farmers are losing valuable cropland and precious growing time because their fields are divided by the DNR property.

What's more, Dostal says, the state hasn't done enough to keep up the trail in unfinished areas west of Winnetka.

"The state doesn't have money to care something like this," he said. "There's a week's all over (the trail). We spend thousands of dollars killing weeds in our fields and they're spreading weeds."



A DNR spokesman admitted that a lot of work remains to be done on the unfinished western section of the Luce Line. The DNR sprays for weeds, but often only after complaints by local farmers.

Recreation supporters believe the former utility would change if the Luce Line were completed all the way from Plymouth to Winnetka, where crushed limestone covers the jogging-biking-riding path and a parallel path for horseback riding will be completed over the entire stretch by the end of summer.

However, opponents say, as long as farmers feel the Luce Line is hurting them financially, their attitudes will be hard to change, even if they look to the east and see people's appreciation with the trail.

City officials in both Wayzata and Orono say they are aware of few complaints regarding the trail.

"Frankly, we're quite pleased with the Luce Line trail," Orono Mayor Bruce Van Ness said. "I wouldn't say there haven't been any problems. But all in all, from our perspective, it's been a worthwhile liability for our residents and other residents in the metro area."

Wayzata Mayor Bill Humphrey said, "A few people speak up (about the Luce Line) but being planned and said they don't want people running dogs out in their backyards. But I haven't heard much the last few years. I think most people enjoy it."

Some contend the Luce Line in-

creases real estate value in the finished areas.

"As far as the MLS (Multiple Listing Service) is concerned, it's never a minus factor as to the Luce Line. It's advertised as such," said Susan Silver, a Wayzata real estate agent. "They don't buy it as much as all, but it's not a decreased value of all."

To be sure, not everyone in the Luce Line. Quarry Hopes lives a few hours down from Perkin in Wayzata and has a firm opinion

"I've never liked it," Harnes said. "I've had problems with it. Every once in a while we've had motorcycles, cars, trucks, and snowmobiles in the winter, and all sorts of things. They're not allowed. Before we put up a fence, we used to have people cutting through our yard all the time. They could just as well have made a tunnel going through our backyard."

Some in Orono are concerned by rumors that Northern States Power Co. has planned to build a new trail and will soon construct a high-voltage power line. Some farmers, an MSP spokesman confirmed that the company has one intent to build a line extending a couple of miles beyond the Hennepin County border. The plan of buying the land from the rail yard and the selling it to the MSP and MSP has no plans for high-voltage lines.

Of more concern to Orono residents are reports of farmers exposing themselves to bikers and joggers.

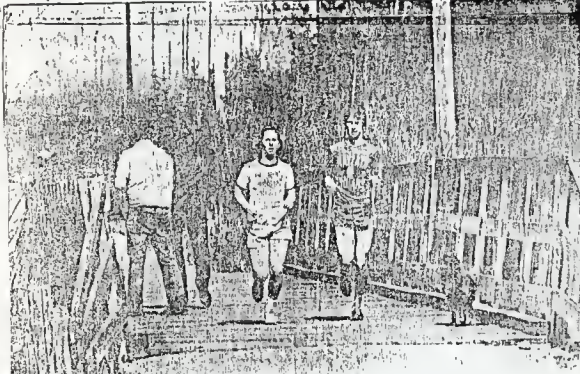
"But I hate to say that's a Luce Line problem, because we've had exposures elsewhere in the city, too," said Orono Police Chief Melvin Kilian. "Lately there haven't been more problems with the trail brought to police attention."

Kernell and Margaret Chismey, who have been married in Orono for 38 years, believe the trail is now being used by the DNR. The Kernell family home is located next to the Luce Line. The trail overruns a picturesque valley where the couple constructed a pond and ponded about 500 or seven trees 15 years ago. The pond is a natural drawing point for passers-by.

In the mid-1970s, before the trail was fully developed, Kernell Chismey said there were problems with noise and litter from parties that took place on the trail.

"But once it was fully developed and the more people, it was a lot better. I think it's been pretty well used as it was intended to be," he said. "We see a lot of trails, but it's the proper kind. We joggers and bikers. In the early stages, people would come and throw bottles and rocks at the pond. We don't see much of that anymore."

"I was happy when they converted it to a public trail. It isn't been since, they never would have had the chance for something like this."



Left Photo by Duane Shapiro

Shaver and Dave Raeder jogged along the Luce Line trail.

APPENDIX I
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OTHER REFERENCES

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**CONVERTED RAILROAD TRAILS:
THE IMPACT ON ADJACENT PROPERTY**

by

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ABSTRACT

Landowner opposition has prevented the development of many railroad rights-of-way into recreational trails across the country. Much of this opposition is based on the belief that the proposed trail will have a negative impact on their adjacent property. Issues such as trespassing, theft, litter, noise, loss of privacy, and lowered property values are major concerns for landowners.

The purpose of this research is to document the changes in adjacent landowner perception about converted railroad trails. The focus is placed on the comparison between current owner attitudes with their concerns before trail development. Some of the factors that impact adjacent property, such as crime and property valuation, are examined. Supporting information is gathered from several professionals including: trail managers, conservation officers, law enforcement agents, county commissioners, appraisers, and real estate agents.

In this study, adjacent landowners are surveyed from two sites in Minnesota, the Root River and the Luce Line Trails. The results indicate that the anticipated concerns before trail conversion are greater than the problems actual experienced by owners after trail development. This reflects an increased desirability rating over time for these two trails.

The information gathered in this study could be used by planners to reassure landowners adjacent to proposed rail-trails. The support of local residents is crucial in developing additional recreational trail across the country.